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Alcohol Abuse Can Lead to Poor Oral Health

Alcohol abuse appears to lead to periodontal disease, tooth decay and mouth sores that are potentially precancerous. Persons who abuse alcohol are at HIGH risk of having seriously deteriorated teeth, gums and compromised oral health in general. 80% of this group of people have moderate to severe gum disease and decayed teeth with more than one third having potentially precancerous lesions. Heavy drinker are at greater risk of developing cancer in the mouth, throat and esophagus - as well as risking tooth decay from the increased exposure to sugars and acids within the drink. People with alcohol abuse problems have been shown to have a higher incidence of periodontal disease, tooth decay and potentially precancerous oral lesions. The social problems arising from alcoholism can be massive and are caused in part due to the serious pathological changes induced in the brain from prolonged alcohol misuse and partly because of the intoxicating effects of alcohol

Genetic predisposition testing: At least one genetic test exists for an allele that is correlated to alcoholism and opiate addiction. Human dopamine receptor genes have a detectable variation referred to as the DRD2 TaqI polymorphism. Those who possess the A1 allele (variation) of this polymorphism have a small but significant tendency towards addiction to opiates and endorphin releasing drugs like alcohol. Although this allele is slightly more common in alcoholics and opiate addicts, it is not by itself an adequate predictor of alcoholism, and some researchers argue that evidence for DRD2 is contradictory to prevent the harm of alcohol and other drug abuse.

Management: Most treatments focus on helping people discontinue their alcohol intake, followed up with life training and/or social support in order to help them resist a return to alcohol use. Since alcoholism involves multiple factors which encourage a person to continue drinking, they must all be addressed in order to successfully prevent a relapse. An example of this kind of treatment is detoxification followed by a combination of supportive therapy, attendance at self-help groups, and ongoing development of coping mechanisms. The treatment community for alcoholism typically supports an abstinence-based zero tolerance approach; however, there are some who promote a harm-reduction approach as well.

Reduce your risk factors: The use of tobacco products is responsible for 80 to 90% of all oral cancers. A pack of cigarettes a day increases your oral cancer risk 4.5 times; six alcoholic drinks a day, 3.3 times; 7 to 9 drinks a day, 15 times. Heavy alcohol use combined with heavy tobacco use can increase the risk up to 100-fold.

Edited by: **Dr. K. Nandakumar,** Hon. Editor • Published By: **Dr. Shibu Rajagopal,** Hon Secretary • **For IDA, Kerala State Branch** • Production: **Suman Graphics,** sumangfx@gmail.com

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Contents

President's Message

Dr. Santhosh Sreedhar

My term as a President is half way through and I feel the days gone by were successful with your constant support and encouragement and I take this opportunity to express my sincere gratitude to all my fellow professionals for their wholehearted cooperation in all the activities of IDA Kerala State.

We could do many projects and programmes in the first six months and the notable among them were Observance of World Community Palliative care day and donation of an Ambulance Van to the pain and palliative care unit, President Secretary Seminar, I state level CDE Programme on Rotary Endodontics Dentist Day Celebrations, Inauguration of State Women Wing, II State level CDE on Minor Oral Surgery, Observation of World Haemophilia Day and Career guidance programmes for the Interns and Students. I place it on record my profound gratitude to IDA Kodungallur, Coastal Malabar, Quilon, Malabar, North Malabar, Kunnamkulam & Malappuram branches for the commendable leadership in organizing the state programmes.

For the first time in the history, IDA Kerala State has come out with the supplementary issue of KDJ to provide adequate publishing space for member who would like to get their research work published. My congratulations to our Editor Dr. K. Nandakumar for publishing the supplementary issue and also the regular issues on time. I wish to appreciate the tremendous and committed efforts of Hon. Secretary Dr. Shibu Rajagopal, CDH Chairman Dr. Abdul Latheef, CDE Chairman Dr. Deepu Jacob Mathew and other State Executive Committee members.

So many programmes are still there in the target list and this can be implemented only by the team work. I request all the members to take part in all the IDA activities so that each member will be a part of building a fruitful Dental fraternity.

Let us reach out for more heights of glory.

Dr. Santhosh Sreedher
President, IDA Kerala State.

Bring back the internship/house surgeoncy

Dr. K. Nandakumar

The graduate programme in dentistry ends with an internship. It was so with all other medical professional courses. It was mandatory to complete the rotatory internship before getting the degree. One year internship provided the graduate a series of experiences which provided them adequate courage to face the clinical practice. Unfortunately the system of house surgeoncy/internship was eliminated in the recent past. Arguments to scrap the system were not sound and most of the teachers now feel that the house surgeoncy could be restored. Only the Kerala Government retained the house surgeoncy for six months. Many private dental institutions in the country do not encourage the internship because they want to avoid giving the mandatory stipend to the intern. Some argue that, the inflow of patient is not adequate to cater to the needs of the house surgeon and priority has to be given to the clinical students. But it has to be remembered that while obtaining the adequate permissions from the concerned, the number of patients shown was adequate to conduct the internship programme. The graduate who comes out of the dental institutions is not fully capable to handle the clinical situations. This is mainly because of the negligence on the part of the authorities to implement a realistic house surgeoncy programme. Every one laments on the poor availability of dental health care in the villages. We have a large pool of professionals in the house surgeon sector and our duty is to channelize that huge potential for the dental health care of the villager. They can be posted in the district and taluk level hospitals under the supervision of the dentist in the health services. They can be utilized to collect data on the dental health needs of the society. Only through them the 1.2 billion population of our nation can think of getting primary dental health care. The rural service should be made mandatory and they can be given an incentive for post graduate course admissions. Without any delay, the house surgeoncy programme has to be implemented with a realistic programme and that will have far reaching effects in improving the dental health care.

Dr. K. Nandakumar
Editor, KDJ

Alcohol consumption and the risk for oral cancer in South India

* Babu Mathew, ** Shiny S.

Oral cancer is the commonest cancer in men and the third common cancer in women in India. It is estimated that there will be 96,000 new cancer patients in 2010 in our country alone.[1] For the purpose of this article, oral cancer is defined as squamous cell carcinoma arising from the oral tongue, gum, floor of the mouth, palate, buccal mucosa, vestibule of the mouth and retromolar area (-ICD10-codes 02-06). Globally oral cancer is the 8th most frequent cancer among men, out of which two-thirds are seen in developing countries. The age standardized incidence and mortality rates in India are 12.8 and 7.2 per 100,000 respectively[2]. The mortality rate from oral cancer in India is 2.5 times more than that of global mortality rate and this is accounted to the late reporting of patients to cancer treatment centres. Though the etiological factors of oral cancer were well identified, even a century ago, the recent epidemiological studies have brought to lime light the importance of alcohol intake and arecanut chewing as the major etiological factors. India is classified and included in the category of "DRY CULTURES" as number of upstaineers are in majority here[3]. Alcohol consumption is an unaccepted social norm and unwelcomed social practice in the country. Unlike in Western countries, there is no uniformity in the amount consumed per day or the type of alcohol consumed even among the habitués. The alcohol consumption is more in the poor socio-economic group[4].

The common types of alcoholic beverages available in the country can be classified into 3 groups:

1. Indian make of " foreign liquors" like whisky, brandy, rum, gin, vodka etc which contains 40-45% of ethanol.
2. The second category "arrack" brood legally or illicit "arrack". The alcohol level of some illicit brood arrack was found to be above 55%.
3. The third group is the local country liquor made from the sap of coconut tree known as "toddy" containing between 5% and 8% alcohol. To increase the intoxication, several substances are used to adulterate toddy such as diazepam, ammonium chloride and even psychotropic drugs.

As the practice of consuming alcohol is not an acceptable norm in the country, there is always under reporting about the quantity consumed. Recent studies have shown that alcohol consumption is increasing and the age of starting of alcohol consumption is decreasing in India[5]. Recent studies in Trivandrum district has also confirmed that though there is a marginal reduction in tobacco smoking habit, the alcohol consumption is steadily increasing in the rural areas of Trivandrum district[6].

Alcohol can be a major factor in oral carcinogenesis in many ways. In terms of local effect, alcohol alters the lipid containing permeability barrier of stratified squamous epithelium of oral cavity. This increases the permeability helping in increased absorption of environmental carcinogens especially polycyclic hydrocarbons of tobacco smoke and nitrosoamines of chewing tobacco[7]. Chronic alcoholism leads to decreased salivary flow which helps to increase the local exposure to irritant agents. Study in non smoker alcohol consumer shows alterations in the oral mucous membrane of the tongue. Presence of alcohol in the mouth with chewing of tobacco increases the rate of leaching out of nitrosoamines and other free radicals of tobacco. This will result in the increased exposure of the oral mucosa to genotoxic action of the tobacco related nitrosoamines.

Aceladehyde is the main metabolite of ethanol. Acetaldehyde also plays a role in oral carcinogenesis[8]. It is still to be scientifically proved some of the secondary substances added to increase sudden kick from alcoholic substances are carcinogenic or not. Two recent observations have pointed out the microbial production of carcinogenic acetaldehyde from ethanol in subjects with poor oral hygiene is an increased risk for oral cancer[9,10].

A study from Regional Cancer Centre, Trivandrum has reported that the risk factor for developing oral cancer is directly proportional to the amount of alcohol consumed daily and the duration of alcohol consumption[11]. This had been the observation world over. However, Table no:1 and 2 shows the hazard ratios of incidence and mortality rates of oral cancer rate in alcohol habitués in Trivandrum. The relative risk of

Table.1. *Hazard ratios of incidence from oral cancer according to alcohol habits.*

INCIDENCE				
		Cases(n)	Person-years of observation	Multivariate-Adjusted HR
Alcohol consumption status	Never	61	178932	1.00
	Current	52	85022	1.49
	Past	21	19127	1.90
	p-value for trend			0.006
Alcohol consumption frequency	Never	61	178933	1.00
	1-4 days/week	21	24618	1.89
	5-7days/week	33	35293	1.79
	p-value for trend			0.006
Alcohol consumption duration	Never	61	178933	1.00
	1-19 years	20	28539	1.87
	20+ years	25	32698	1.80
	p-value for trend			0.005

Ref: Cancela M de C, Ramadas K, Fayette J-M, Thomas G, Muwonge R, Chapuis F, Thara S, Sakaranarayanan R, Sauvaget C. Alcohol intake and oral cavity cancer risk among men in a prospective study in Kerala, India. Commuity Dent Oral Epidemiol 2009.

developing oral cancer in various intra oral sites in smokers alone, chewers alone and alcohol consumers had been worked out[12]. It is interesting to note that when a person is exposed to more than one type of oral habit the relative risk of developing oral cancer increases in geometric proportions showing that these habits are strongly synergestic. It is seen from the study by Cancela et al that the relative hazard ratio in past users are more than that in current users. A critical analysis of the individual case sheets shows that the past users are heavily alcoholic and stopped alcohol consumption due to alcohol related diseases like cirrhosis of liver, hepatitis, malnutrition, immunosuppresssion and psychartic disorders.

Most of the observations showing the risk of developing oral cancer in alcohol consumers had come from the study of males only. This is because the alcohol consumption among women will be unreported in a country like India[13]. In most epidemiological studies the frequency of alcohol intake is measured in grams of alcohol consumed per day. But this was not possible in quantifying daily alcohol consumption in South Indian population. The frequency of alcohol intake was measured in weeks rather than in days. This is essentially due to the difference in the pattern of drinking alcohol in the affluent West as compared to the poor Indian labour class who may have a few non drinking days in a week. In India, alcohol consumed in connection with festivals and celebrations by many more and they are categorized as occasional users. The occasional users are not considered as habitués when the statistical analysis is done.

As alcohol use in India is on the rise, the number of oral cancer is likely to increase in future. The existing policy on alcohol should be reviewed and appropriate measures should be taken to control alcohol consumption to avert an emerging crisis due to oral cancer. The income from excise duty on the sale of alcohol forms a formidable budgetary income of the State Government. Therefore, many State Governments are indirectly encouraging the sale of alcohol. A part of the income from the sale of alcohol should be year marked to carry out the research on alcohol related diseases.

More focused to the search of public health dimensions of excessive consumption of alcohol should be carried out. It is understood that there are effective de-addiction methods in homeopathy, and other systems of medicine. Though, there are de-addiction clinics, the appropriate strategies for intervention should be formulated locally by taking leads from cultural practices. There should be programs of public awareness on dangers of alcohol abuse through formal education, informal education and all available electronic and print media. These activities will help to curb the health, financial and social hazards from alcohol abuse.

Table.2. *Hazard ratios of mortality from oral cancer according to alcohol habits.*

MORTALITY				
		Cases(n)	Person-years of observation	Multivariate-Adjusted HR
Alcohol consumption status	Never	43	179134	1.00
	Current	34	85158	1.49
	Past	14	19212	1.90
	p-value for trend			0.006
Alcohol consumption frequency	Never	43	179134	1.00
	1-4 days/week	13	24700	1.89
	5-7days/week	25	35376	1.79
	p-value for trend			0.006
Alcohol consumption duration	Never	43	179134	1.00
	1-19 years	10	28620	1.87
	20+ years	28	32792	1.80
	p-value for trend			0.005

Ref: Cancela M de C, Ramadas K, Fayette J-M, Thomas G, Muwonge R, Chapuis F, Thara S, Sakaranarayanan R, Sauvaget C.Alcohol intake and oral cavity cancer risk among men in a prospective study in Kerala, India. Commuity Dent Oral Epidemiol 2009.

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Case report

Hereditary gingival fibromatosis

*** Sabari Chandramohan, ** Shashikanth Hegde, *** Rajesh K.S, *** Arunkumar M.S.**

Abstract

Gingival enlargement is the overgrowth of the gingival; characterized by expansion and accumulation of the connective tissue. Enlargement of gingiva can be classified according to etiology, pathogenesis, location and distribution. Hereditary Gingival Fibromatosis is a rare gingival lesion that presents as localized or generalized enlargement of the attached gingiva and is characterized by pink, firm and fibrotic lesion with little tendency to bleed. This presentation describes a case of Hereditary Gingival Fibromatosis, along with its management and follow-up in a 21 year old female patient.

Introduction

One of the foremost tissue changes seen in cases of periodontal disease is gingival enlargement or gingival over growth. Gingival enlargement was first reported by Goddard and Gross in 1856 as "Fungus Excrescence". The name "Gingival Fibromatosis" was given by Fletcher in 1966[1]. Hereditary Gingival Fibromatosis is a rare condition characterized by generalized enlargement of the buccal and lingual aspects of keratinized gingiva on the maxilla and mandible. Male and female are equally affected, with a phenotype frequency of 1 :175,000.[1,2] Rate of recurrence is approximately 24% after surgical treatment. In addition to the hereditary and syndromic forms (hypertrichosis associated with mental disorder, Zimmermann Laband syndrome, Jones syndrome)[3,4,5], gingival enlargement is also induced by certain drugs like phenytoin, cyclosporin, nifedipine etc[3,5]. As a result of Hereditary Gingival Fibromatosis the teeth becomes buried to varying degrees beneath the redundent hyperplastic tissues and results in aesthetic and functional problems. Hereditary Gingival Fibromatosis is an inherited condition with spontaneous and progressive enlargement of the gingival tissue which shows intense clinical, genetic, and biologic heterogenecity. In majority of the cases, the onset is within the first two decades of life and is often associated with the eruption of deciduous or the permanent teeth. HGF has also been recently reported in association with aggressive periodontitis[6].

Synonyms

- *Gingivomatosis*
- *Elephantiasis gingivae*
- *Idiopathic Gingival Fibromatosis*
- *Hereditary Gingival Hyperplasia*
- *Congenital Familial Gingival Fibromatosis*
- *Hypertrophic gingival*

Case report

A 21yr old female patient reported to the Department of Periodontics with a complaint of swollen upper and lower gums, since childhood and she was concerned about the esthetic appearance. She did not give any history of systemic conditions or drug therapy that could lead to gingival enlargement. She did not appear to have any mental impairment. Family history revealed that her father and brother also had the similar gingival condition. However this could not be confirmed.

On general physical examination, the patient was moderately built and moderately nourished. Intra oral examination revealed a generalized diffuse bulbous non-inflammatory enlargement of the buccal and lingual gingiva of maxilla and the mandible. The enlarged gingiva was pink in colour, with evidence of physiological melanin pigmentation, firm and fibrotic in consistency, and with Grade I bleeding on probing (Modified Muhlemann and son index). Severe gingival enlargement was found on the labial surface of maxillary and mandibular anterior region and it covered 2-3mm of the crown of the tooth.

Periodontal probing revealed the presence of gingival pocket with no loss of attachment. Tooth mobility was not observed. Oral hygiene maintenance was less than adequate. A Grade II plaque score (Silness and Loe) was recorded in the right posterior maxillary region. Halitosis was absent. Spacing in maxillary anterior teeth was noticed.

Hematological examination revealed the basic parameter to be within normal range.

OPG (Orthopantamogram) revealed a normal height of the crest of the bone, and no other pathology was detected.

Clinical appearance of the generalized gingival enlargement (pre-operative view)

External bevel gingivectomy performed in the maxillary arch

Clinical Diagnosis of Hereditary Gingival Fibromatosis was made based on:

- Clinical appearance
- Absence of relevant history of drug intake or any systemic syndrome
- Family history

Management

The patient was appraised of the gingival condition and the details of the treatment were explained and an "Informed Consent" was obtained.

Management protocol involved the following components :

- Phase I – Non - Surgical
- Scaling & root planing.
- Oral hygiene instructions
- Re-evaluation after 10 days
  During follow up (after 10 days), the patient's condition did not resolve.
- Phase II – Surgical
- Full mouth Quadrant wise Gingivectomy & Gingivoplasty

Armamentarium

Mouth mirror, periodontal probe, pocket marker, gingival curettes, Bard - Parker blade & handle, gingivectomy knife, scissors, tissue forceps and disposable surgical kit.

Technique

Sextant wise surgical gingivectomy was planned and local anesthesia of the assigned sextant was achieved using 2% Lignocaine Hydrochloride with Adrenaline 1:80000 solution**.** Periodontal pockets were explored using a periodontal probe and the pockets were marked with the pocket marker (Krane Kaplan). Taking these bleeding points as guidelines external bevel incisions were placed at an angle of 45° using a #15 Bard - Parker blade directed towards crest of the bone and base of the pocket. The discontinuous incision beveled to the tooth surface in festooned pattern of gingiva. Excised tissue was removed and it was stored in formalin. Depigmentation was carried out using the conventional scalpel technique. The excess tissue tags were removed using curved Goldman - Fox scissors.

Tissue sample excised during surgery was examined histopathologically.

The Hematoxylin and Eosin staining revealed a para keratinized stratified squamous epithelium that was hyperplastic and with long rete ridges. The underlying connective tissue was fibrous with dense collagen bundles and showed few inflammatory cell infiltrates and blood vessels. All these features supports the clinical diagnosis of Hereditary Gingival Fibromatosis (Fig. 1)

Hemostasis was achieved and periodontal dressing (Vocopack) was placed. Post surgical instructions were given. Analgesics were prescribed and the patient was recalled for review after 7 days. Home care included use of 0.2% Chlorhexidine oral rinse twice a day for 2 weeks after each surgery. Gingivectomy was performed on all the four quadrants. After gingivectomy adequate healing in surgical site was observed. Oral hygiene instructions were reinforced. Esthetic appearance was improved and patient was satisfied. Patient is under review for the past one and a half months and no sign of recurrence has been observed.

Discussion

Gingival enlargements are usually acquired forms, while the hereditary forms are rare and usually develop as an isolated disorder. Hereditary Gingival Fibromatosis is a disease of infancy and childhood characterized by gingival enlargement of normal colour and firm consistency that is non hemorrhagic and asymptomatic. Hereditary Gingival Fibromatosis starts at the time of eruption of permanent dentition. It affects esthetically and functionally due to diastemas, malpositioning of teeth, retention of primary teeth, delayed eruption of permanent teeth, cross bite and open bite, prominent lip or open lip posture.[3,6] Hereditary Gingival Fibroblast may result in periodontitis, bone resorption and halitosis. Early study showed proliferation rate of fibroblasts in Hereditary Gingival Fibroblast to be lower than the normal gingival fibroblasts (Shirasuna et al). Later studies showed significantly higher proliferation of fibroblasts in Hereditary Gingival Fibroblasts compared to fibroblasts from normal gingiva (Andrade et al). Recent studies suggest a role of androgen driven fatty acid biosynthesis, role of sex hormones, and C - myc proto - oncogene expression in fibroblast proliferation in Hereditary Gingival Fibromatosis. [3]

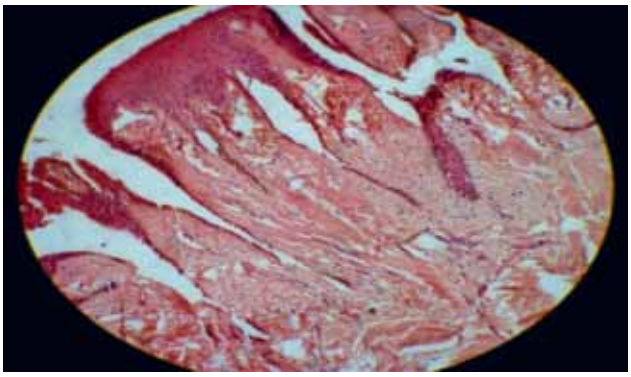

Fig 1. Histopathological picture showing parakeratinized stratified squmous epithelium with elongated rete ridges and densely collagenous connective tissue

Post-operative view after 30 days

Increase/ decrease synthesis of collagen, increased synthesis of extracellular matrix components and diminished extracellular degradation contributes to gingival enlargement in Hereditary Gingival Fibromatosis.[2,3] TGF-β1, CTGF and myofibroblasts may play a key role.[3] The best time for the treatment is when all the permanent teeth have erupted because the risk of recurrence is higher before it. The treatment depends on the severity of the enlargement. For minimal enlargement scaling and home care, and for severe enlargement gingivectomy should be the right approach.

The different techniques used for excision of enlarged gingival tissues are :

- External or internal bevel gingivectomy or / and gingivoplasty with an apically positioned flap.
- Gingivectomy using electrocautery.
- Gingivectomy using carbondioxide laser.

Maintenance of oral hygiene is vital to prevent recurrence.

Summary

Hereditary Gingival Fibromatosis is characterized by the proliferative fibrous overgrowth of the gingival tissue, with varying degree of involvement. Impaired appearance and function often demand surgical intervention, although recurrence cannot be predicted. However, the psychological benefits resulting from cosmetic improvement far outweighs the risk of recurrence.

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Case report

Prosthetic management of a patient with ocular defect

* Deepa P. Shenoy, ** Chengappa.M.U

Abstract

Ocular prosthesis is an artificial replacement of the eye. The goal is to replace the missing tissues with an artificial prosthesis and restore the facial symmetry and normal appearance of an anophthalmic patient. Prosthesis is probably the only alternative in such cases to help and rehabilitate such patients. Prosthesis planning and rehabilitation should be an integral part of the team management to provide not just the preservation but a quality of life for the patient. Custom made prosthesis provide more esthetic and precise result when compared to stock eye prosthesis. Simplification of technique with commonly available materials like heat cure acrylic resin makes it undoubtedly a challenging attempt. This is a case report presenting fabrication of an eye prosthesis in a cost effective manner.

Introduction

Eyes are generally the first feature of the face to be noticed. Eye is a vital organ not only in terms of vision but also being an important component of facial expression. Loss of eye has a psychological effect on the patient. So a prosthesis should be provided as soon as possible for the psychological well being of the patient.[1] Artificial eyes have been in existence for thousands of years. Dating back to ancient Egyptian, eye replacement with precious stones, bronze, copper, gold, marble & enamel was a common practice for wealthy classes.[2] In 16th century Pare, an army surgeon used gold, silver and later glass. Celluloids were used in 19th century. Finally glass remained the most popular material until second world war. Over the last few years maxillofacial prosthodontics has developed tremendously. With the advent of newer materials, it is possible to create a prosthesis with a life – like effect. Close adaptation of custom made ocular prosthesis to tissue bed provides maximum comfort and restores full physiologic function to accessory organs of the eye.[3] Without it the eyelid tend to shrink & turn in eventually coming into contact with and irritating sensitive lining underneath. Also tear glands designed to wash eyes have nothing to work on. Moisture then pools in socket where it can lead to problems.

Case report

A 75 year old female patient reported to department of prosthodontics, Kannur Dental College with a defect in the right eye. Case history revealed that she got her right eye enucleated when she was 50 years old due to retinoblastoma tumor. On examination mucosa was healthy. Sulcus depth was sufficient enough to retain the restoration. A custom made ocular prosthesis was planned to meet the needs of the patient since it would result in better esthetics than a stock eye shell.

Materials used

· Self cure acrylic for special tray fabrication, Heat cure clear acrylic resin, Alginate, Stock eye shell and Light body impression material

Impression procedure

Petroleum jelly was applied to the eyebrows & skin around to prevent impression material from sticking to eyelashes. Primary impression was made with irreversible hydrocolloid material (Alginate, tropicalgin).[4]

A cast was made from type II gypsum on which a special tray was fabricated using self cure acrylic (DPI). A syringe was attached to the special tray through a perforation made at the centre of it (fig2) Impression of the defect was recorded using polyvinyl siloxane light viscosity material (3M ESPE) (fig 3). Material was injected into the socket. Patient was asked to perform eye & eyelid movements as the material was injected so that the impression was recorded in the functional form. After the material set, impression was retrieved from the socket and checked to ensure that all surface were recorded.

Formation of cast:

Cast was poured using split cast technique[1]. Lower half of impression was immersed in first pour of type IV gypsum product (Pearl stone) to create a mould. Indexing was done over the first set layer for proper orientation of the cast. Separating media (DPI) was applied and the second pour was poured.

Preparation of wax pattern:

Molten modeling wax (Hindustan) was poured into the mould and wax pattern (fig4) was fabricated through a perforation made on one half of the cast in the centre. Portion of wax that represented palpebral fissure was re-contoured to form smooth convex surface.

Try in of wax pattern

The wax pattern was tried in patients socket(fig5) and checked for size, comfort, support, fullness and retention by performing the functional movements. The wax pattern was flasked, dewaxed and packed with tooth colored heat cure acrylic resin (DPI) the shade of

Fig. 1 (ocular defect)

Fig. 2 acrylic special tray attached to the syringe)

Fig. 3 (making of impression using polyvinyl siloxane light body material)

Fig. 4 (fabrication of wax pattern)

Fig. 5 (wax try in)

Fig. 6 (scleral shell try in)

Fig. 7 (pre operative)

Fig. 8 (post placement)

which was initially matched with the scleral portion of contralateral eye. Curing & polishing of scleral shell was done. Patient was made to sit upright and was asked to look straight with head erect. A second try in using custom made shell was done to mark the iris and corneal portion on the shell (fig6) using contralateral iris and cornea as a reference. The size and color of cornea & iris portion was selected using prefabricated eye shell. It was trimmed to the desired size which was previously marked on the shell during second try in. Acrylic was trimmed to a depth sufficient enough to incorporate the corneal portion which was retained using the same shade self cure acrylic resin. Then a thin layer of wax was placed over the surface of scleral shell to create a space for clear acrylic which gave a life like effect.

Acrylisation:

Flasking dewaxing, packing and curing of scleral shell was done using heat cure clear acrylic resin (DPI). Prosthesis was finished & polished.

Post placement instructions:

a) Insertion and removal

Insertion was done by lifting the upper lid with one hand and sliding the prosthesis into the socket depth with the other hand pulling the lower lid down and keeping the gaze downwards.

Removal is done by pulling the lower lid down and engaging the lower margin of prosthesis which facilitates its removal.

b) Care & Maintenance:

Washing the prosthesis with mild soap and warm water daily. The patient was called for follow up after 1 week, 1 month and 6 months.

Discussion

Now with the advent of newer materials like heat cure acrylic resin (DPI) as been used here, it is possible to fabricate prosthesis with a life like appearance.

Prosthodontist is a person who comes into an act of providing the patient with artificial eye to overcome the agony of losing an eye.[5] Implants are the best treatment option for prosthetic rehabilitation, might not always be possible or feasible due to the cost factor. So a custom made ocular prosthesis provide better results functionally, esthetically and economically. It retains shape of defective socket, prevents collapse of lids, provides muscular functions of the lids, maintains palpebral opening, gives a gaze similar to that of natural eye.[6]

Conclusion

Custom made ocular prosthesis has been a boon to the patient who cannot afford an implant placement. The esthetic and functional outcome of the prosthesis was far better than the stock ocular prosthesis.[7] The procedure used here is simple, cost effective and highly satisfying.

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Management of patients with mandibular discontinuity

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Abstract

Prosthodontic rehabilitation of hemi-mandibulectomy is essential for function and health of the patient. If the resected side is not contoured with bone graft materials, the functional efficiency and retention of the prosthesis is compromised. The prosthodontist need to evaluate each case and the associated problems before the final treatment planning. This article gives an extensive review of the various prosthetic treatment options available for the management of hemimandibulectomy patients.

Introduction

Trauma, precancerous lesions or tumor of mandible requires surgical removal of the involved part. In such cases the patient has to undergo a series of surgeries, which involves resection of hard and soft tissues. Resection can be either marginal or a midline resection of mandible depending on the extent of the lesion. The resected part should be ideally grafted with autogenous grafts[1]. If the resected side is not grafted, there will be significant impairment of the mastication and esthetics. Impairment is associated with dissection of the attached muscles, muscle contraction on post radiation scars resulting in ipsilateral functioning of the masticatory and suprahyoid muscles. All the above factors combine to produce an aberrant pattern of mandibular movement and mandibular deviation.[2, 3] Mandibular deviation, due to loss of mandibular bone continuity and related altered muscle function, results in facial asymmetry and malocclusion.[4, 5, 6]

Treatment modalities for resected mandible

There are various treatment options for the management of a hemimandibulectomy. For a marginal mandibular resection a mandibular guidance flange prosthesis and palatal ramp prosthesis can be fabricated while for a segmental midline defect a snap-on prosthesis or a bar supported over denture or an implant supported prosthesis can be given.[7, 8, 9]

Mandibular guidance therapy should be started as early as two weeks after surgery followed by occlusal equilibration. Mandibular guiding flange (Fig. 1) is an interim prosthesis which is to be used till the patient attains an acceptable occlusal relationship and proprioception. It can be made either in acrylic or cast chrome-cobalt metal. Guiding Flange definitive prosthesis (Fig. 1) consists of a removable partial denture framework with a metal flange extending laterally and superiorly on the buccal aspect of bicuspids and molars on non-defect side. The flange engages the maxillary teeth during mandibular closure, thereby directing the mandible in to an appropriate intercuspal position.[9]

Framework should engage all the remaining natural teeth to avoid individual tooth movement like supra-eruption and tilting. The guidance flange extends from a continuous strut placed along the buccal surface of premolars and molars, superiorly in diagonal manner due to angular pathway of mandibular closure. This allows normal horizontal and vertical overlap of maxillary teeth. In case of guiding flange prosthesis (Fig.2) which is fabricated in patient's mouth, a retentive mesh is extended from the continuous buccal strut on the non defect side.[10, 11]

Maxillary guidance ramp or palatal ramp (Fig. 3) is another interim appliance used in the correction of mandibular deviation. The design of the ramp is not as complex as the guiding flange. Initially a maxillary full palatal plate is fabricated in acrylic resin with either cast or wrought wire retainers. Ramp is made with a mix of autopolymerising acrylic resin placed on the lateral as well as anterior border of the non defect side of the prosthesis. [12]

Magnet retained prosthesis design (Snap on attachment)

Another treatment options for lateral marginal excision of edentulous mandible is fabrication of a "resection prosthesis which is a partial complete lower denture". This lower denture has esthetics excellence but has very less masticatory efficiency. The stability of the denture during various mandibular excursions can be obtained by grinding the buccal cusps of upper and lingual cusps of lower or by changing the arrangement of teeth or plumping of denture base.[13]

In patients with a segmental marginal midline defect, there is modification in the treatment plan and prosthesis. A snap-on or attachment or magnet retained prosthesis (Fig. 4) is the ideal treatment of choice.

Semi-precision attachment

The abutment teeth on the either side of the defect are prepared and wax up for crowns is made on the die. A wax pattern of Dolder or Andrews or Baker

Fig. 1 Metal guiding flange

Fig. 2 Acrylic guiding flange

Fig. 3 Palatal Ramp

Fig. 4 Snap-on attachment

Fig. 5 Dolder Bar

Fig. 6 Completed prosthesis

bar semi-precision attachment is incorporated on the wax pattern of the abutment teeth on the either side of the effect using a surveyor (Fig. 5 and Fig. 6).

This is further casted and the finished restoration is cemented in the mouth. A cast partial denture is fabricated in such a way that it snaps and fits on the attachment while the clasps fit on the crowned teeth. Another treatment option for patients with marginal excision of edentulous mandible in the midline region is to restore with heavier denture which helps to keep the prosthesis in mouth or fabricate an unconventional prosthesis with springs to bring the lower lip to normal position.[14]

Conclusion

In patients with resected mandible the prognosis is quite variable. As mandible is a dynamic structure, the Prosthodontic rehabilitation process is more complicated. This article has briefed out the various treatment prosthesis for resection of mandible. However improved mastication and occlusion on the non-resected side with a removable prosthesis is a reasonable objective than an expensive implant supported prosthesis.

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Case report

Spontaneous extrusion of a sialolith

* P.G.Antony, ** Yogesh Mittal, ** Sanjay Kumar

Abstract

The formation of stones or calculi may occur throughout the body including gall bladder, urinary tract, salivary gland etc. Inflammation, irregularities in the duct, local irritants and anticholinergic drugs may cause pooling of saliva within the duct resulting in sialolith. The majority of sialoliths occur in the submandibular gland or its duct and are a common cause of acute and chronic infections. Stones at or near the duct orifice can often be removed by milking the gland. But deeper and larger stones require surgery. This case report describes a patient presenting with spontaneous extrusion of a large submandibular gland sialolith.

Introduction

Sialolithiasis is the most common disease of salivary glands. It is the formation of calcific concretions within the ductal system of a major or minor salivary gland. It is the major cause of unilateral diffuse parotid or submandibular gland swelling and incidence of 12 in 1000 of the adult population. Males are affected twice as much as females. Children are rarely affected. Sialolithiasis accounts for more than 50% of diseases of the large salivary glands and is thus the most common cause of acute and chronic infections. More than 80% occur in the submandibular gland or its duct, 19% in the parotid gland and 1% in the sublingual gland or minor salivary glands. In case of minor salivary glands, upper lip is most commonly involved. It is usually single; but if multiple- 30% occurs in parotid gland & 20% in submandibular gland 80-90% of SMG calculi are radio-opaque. 50-80% of parotid calculi are radiolucent. Clinically they are round or ovoid, rough or smooth and of a yellowish colour. They consist of mainly calcium phosphate with smaller amounts of carbonates in the form of hydroxyapatite, with smaller amounts of magnesium, potassium and ammonia. This mix is distributed evenly throughout. Submandibular stones consist of 82% inorganic and 18% organic materials whereas parotid stones are composed of 49% inorganic and 51% organic material. The organic material is composed of various carbohydrates and amino acids.

Case Report

A 36 -year-old man reported to Dept. of Oral & Maxillofacial Surgery, Govt. Dental College, Kottayam, Kerala with chief complaint of pain & swelling over Lt submandibular region. Extra-oral examination revealed a firm, tender swelling in the left submandibular region. Intra-oral examination revealed an infected large, firm, tender swelling with pus discharge from the anterior floor of mouth in the region of the submandibular duct. A lower occlusal radiograph showed a radio-opaque mass extending back beyond the lower left first permanent molar.

Radiograph gave an illusion of an impacted canine.

A diagnosis of left submandibular duct calculus was made. Antibiotics and analgesic was given and infection controlled. Surgical removal of the stone intraorally under LA was planned. Previous day of surgery, stone spontaneously came out during warm saline gargle. It measured 31mm in length.

The patient was followed-up two weeks post operatively to check salivary function of the gland. On review the left submandibular gland was palpable but clear saliva could be expressed from the duct.

Discussion

Spontaneous extrusion of large sialoliths have been reported rarely. Lozano Blasco J reported the case of a 9-year-old boy with submandibular sialolith who presented spontaneous passage of a large salivary stone. Dan Karenge, Afshin Yousefpour and Hervé Reychler also reported an unusual case of cutaneous extrusion of submandibular salivary gland stone.

The exact etiology and pathogenesis of salivary calculi is unknown. Genesis of calculi lies in the relative stagnation of calcium rich saliva. They are thought to occur as a result of deposition of calcium salts around an initial organic nidus consisting of altered salivary mucins, bacteria and desquamated epithelial cells.

Conclusion

Careful history and examination are important in the diagnosis of sialolithiasis. Bimanual palpation of the

Fig. 1 OPG showing submandibular salivary stone

Fig. 2 Lower occlusal radiograph showing submandibular salivary stone

Fig. 3 Intraoral swelling in the left anterior floor of mouth in the region of the submandibular duct

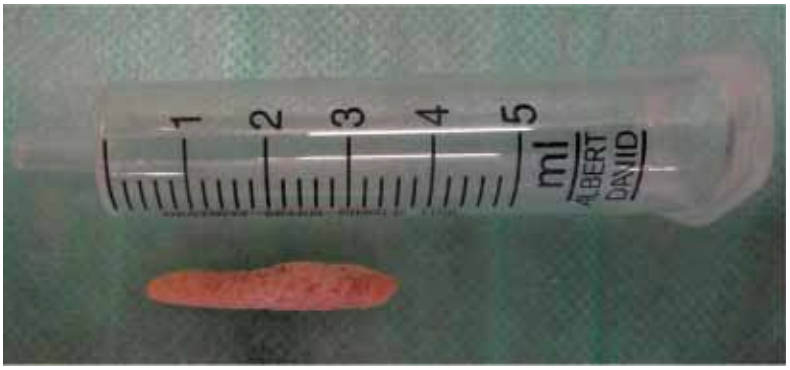

Fig. 4 The calculus

floor of the mouth, in a posterior to anterior direction, reveals a palpable stone in a large number of cases of submandibular calculi. Stones at or near the duct orifice can often be removed by milking the gland. But deeper and larger stones require surgery. This article describes the clinical report of 36 years old patient with large submandibular sialolith which got extruded spontaneously without any surgery.

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Case report

Rehabilitation of a young patient with a cast post and ball attachment over denture

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Abstract

The over denture is defined as a removable partial denture or complete denture that covers and rests on one or more remaining natural teeth, the roots of natural teeth and / or dental implants; a prosthesis that covers and is partially supported by natural teeth, natural tooth roots and / or dental implant. Over denture therapy is essentially a preventive prosthodontic concept since it attempts to conserve the few remaining natural teeth. There are two physiologic tenets related to this therapy: the first concerns the continued preservation of alveolar bone around the retained teeth while the second relates to the continuing presence of periodontal sensory mechanisms that guide and monitor gnathodynamic functions. This case report highlights the relevance of a conventional overdenture treatment option in modern dentistry.

Introduction

Dentists have long recognised the difference that the presence of teeth makes to preservation of alveolar ridge integrity.[1] In the past, the extraction of entire dentition followed by complete dentures were the treatment of choice for patients with few remaining teeth.

As a result of the pioneering studies in the field of Branemark et al, implant supported options are the latest trend and extensive studies have supported this view.[2,3] Tooth supported overdentures have been an accepted time tested treatment modality which provides an edge over implant supported over denture–'proprioception'.

Case Report

A 34 year old male reported to the Department of Prosthodontics, Govt. Dental College, Trivandrum with remaining teeth i.e 13,14,25,27,43,47. A temporary removable partial denture was initially fabricated for the patient to assess the dexterity of the individual and also to assess whether the patient was motivated enough to go for further treatment options. IOPAs were taken of the remaining teeth and they were found to have Grade I mobility. The treatment plan that was formulated was to give a cast post and ball supported overdenture to the patient.

The teeth 13, 14, 25 and 43 were cut off at the level of gingival (Fig.1). Root canal treatment was performed for all the teeth. Primary impressions were made with elastomeric impression material (Elite H.D). On the cast, a custom tray was fabricated and border moulding of upper and lower arch was done. Post space was prepared for the teeth with paezoreamers and 4mm Gutta Percha was left at the end of the canal. The secondary impression was taken with light body impression material (Elite H.D). Along with the wash impression, the impression of the post space were taken using the light body material by incorporating nylon strips into the canals.

A master cast was fabricated and a custom made cast post and ball attachment was incorporated. (Fig.2). The attachment was luted with temporary cement during the jaw relation and trial stages. The final prosthesis was fabricated with Silicon O Rings on the undersurface of the dentures corresponding to the 'O' balls on the roofs. (Fig. 3 and Fig. 4)

The attachments were permanently luted using glass ionomer cement (G.I Fuji) and the dentures were inserted in the same appointment (Fig. 5)

Discussion

It is a documented fact that after the loss of the teeth the residual alveolar ridge undergoes rapid loss in all dimensions. The phenomenon of residual ridge resorption (RRR) following removal of teeth been well observed and documented in literature.[1,3] While the bone loss following the removal of teeth is stated to be rapid, progressive, irreversible and inevitable, it is equally well observed that bone is maintained around standing teeth and implants.[4,5] Over denture therapy constitutes essentially a preventive prosthodontics concept as it endeavours to preserve the few remaining teeth and the supporting structures [1,2]. The teeth which are too weak to support a fixed partial denture and are considered unsuitable to support a removable partial denture can often at times be usefully conserved and suitably modified to act as abutments under over dentures for useful span of time.[6,7] Various terms have been used to describe this treatment modality: overlay

Fig.1 Reduction of Crown structure

Fig. 2 Ball attachments

Fig. 3 Maxillary denture with 'O' ring

Fig.4 Mandibular denture with 'O' ring

Fig. 5 Patient with Prosthesis

denture, telescoped dentures, tooth supported dentures, hybrid prosthesis, crown and sleeve prosthesis, and the superimposing dentures.

The basic requirements to construct an overdenture as outlined by Winkler are

i) Maintenance by the patient
ii) Healthy basal tissue
iii) Reduction in crown root ratio
iv) Simplicity in construction
v) Ease of manipulation

In this patient, an implant supported prosthesis was denied by the patient due to cost factor a and fear of extensive surgery. A ball attachment was performed since the teeth were Grade I mobile and hence they were reduced till the level of the alveolar ridge to reduce the crown:root ratio.[8,9,10] Mobility has been found to be lessened under an overdenture. In young patients, the multiple advantages that an overdenture provides us with are

i) Preservation of alveolar bone
ii) Presentation of proprioceptive responses
iii) Support
iv) Retention
v) Convertability
vi) Patient acceptance

But on the other side, there are disadvantages like

i) Caries Susceptibility
ii) Management of bony undercuts
iii) Encroachment of Interocclusal distance
iv) Compromised esthetics

Conclusion

A tooth supported Overdenture will provide a better option than a complete denture to the patient with respect to function, but the fabrication is technique sensitive and requires absolute prudence on behalf of the dentist.

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Case report

Apert syndrome

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Abstract

Apert's syndrome {Acrocephalosyndactyle} is a rare condition that is characterized by craniosynostosis, syndactyly of hands and feets. The patient presented with several craniofacial deformities including brachycephaly, midface hypoplasia, flat face, hypertelorism, ocular proptosis, downslanting of the palpebral fissures. It occurs in 1 of every 65000 to 160000 births. We report a case of 15 year old female having apert's syndrome with complete bilateral cleft of lip & palate.

Introduction

Apert's syndrome is a rare autosomal dominant disorder characterized by craniofacial synostosis, craniofacial anomalies and severe symmetrical syndactyly of hands & feet. More than 98% of cases of apert's syndrome is caused by specific misssense substitution of mutation {Ser252Trp,Ser252Phe,Pro253Arg] involving fibroblast growth factor receptor 2{FGFR2}, which maps to chromosomes band 10q25-q26, remaining cases due to mutation in or near exon 9 of FGFR2[1]. Histology reveals that normal calvaria suture are in part, fibrous joints between intramembranous bone. The new born infant with apert syndrome exhibit a fused coronal suture and an agenesis of the sagittal & metopic suture, which results in a wide defect extending from the glabella to the posterior fontaneles. Which in 2-4 years of age, the saggital and metopic suture defect becomes obliterated by the coalescence of the interspersed body island, but without the formation of a proper suture[2]. Additionally, the spheno-occipital and sheno-ethmoidal synchondrosis with the fronto-ethmoidal suture fuse early, resulting in a severely shortened posterior cranial base with a resultant hypoplastic midface[3]. Craniostenosis usually occurs in coronal suture resulting in acrocephaly, brachycephaly, flat occiput & high prominent forehead. Eyes exhibit downward slanting palpebral fissures, hypertelorism, shallow orbit, proptosis & exopthalmosis. Nose has a marked flat nasal bridge.

Severe acneiform eruption, seborrhea, cutaneous and ocular hypopigmentation.[4,5,6,7,8,9]

Maxilla is hypoplastic in all dimensions viz; transverse, vertical and sagittal.

It is also retro positioned. There is poor aerations of the maxillary antrum and the palate is high arched and narrow transversely.[10,11,12] The pharynx like the maxilla is small in all direction.[13] The small pharynx, the thick soft palate with retro positioned maxilla and nose are factors contributing to a compromised airway. Maxillary arch is V-shaped and can be some compensatory growth of the alveolar base[11] open bite is common, the appearance of a patient with apert syndrome is prognathic, it is basically due to retro positioned maxilla. Severe upward backward rotational alignment of the middle cranial fossa and very short anterior cranial fossa correlates with short "ethmoidomaxillary" complex.[13] The ramus is narrower in anterior as compared to posterior dimension. Ramus height is equal or greater than normal.[14] Mandibular body is short. The mandible although smaller grows more or less normally, though the gonial angle is on the higher side,[15] high arched palate, bifid uvula, cleft palate, crowded upper anteriors, delayed ectopic eruption, malocclusion, V shaped arch, bulging alveolar ridge are seen in a apert syndrome patient. Lips are characterized by the crossbow shape of the upper lip or trapezoidal shape of both the lips.[11] A protruding lower lip similar to the lower lip of cleft patient is noted. The lips range from incompetent to competent in their ability to form a seal.

The most common cervical spine abnormality is intervertebral fusion.[16,17] Cervical spine fusion occurs in up to 71% of patients with Apert syndrome and most often involves the fifth and sixth vertebrae.[2,18] The naso pharyngeal and oro pharyngeal attenuation along with a potentially inflexible neck, compound an already problematic airway. Individuals become mouth breathers of necessity due to reduced airway patency with resultant anterior open bite.[19,17]

Syndactyly involves partial or complete fusion of second, third, fourth digits. Intelligence varies from normal to sub normal. Papilledema optic atrophy may be associated. Hyperhydrosis commonly seen. Cardiovascular manifestation ASD, VSD, PDA, pulmonary stenosis is present[1].

Fig.1&1a Showing Prominent forehead, flat occiput & brachiocephaly with facial assymetery. Eyes exhibited downward slanting palpebral fissures, hypertelorism. Flat depressed nasal bridge with prominent bulbous tip. Ears are low set than normal

Fig.2 Showing Syndactyly

Fig.3 Showing Hypoplasia of feet

Fig.4 Showing Malocclusion

Fig.5 Showing Flat occiput& frontal bossing

Case report

A 15 year old female presented to Dept. of Oral & Maxillofacial Surgery-Mar Baselios dental college Kothamangalam for aesthetic correction of face. She was the first child to a normal mother of non-consanginous marriage. She had two sibilings {two younger brothers who were normal}. There was no family history of similar complaint or any other congenital abnormality. She had undergone surgery for bilateral complete cleft lip at the age of 6 months and for complete cleft palate at the age of 8 years. Patient had no relevant medical history. Patient had a prominent forehead, flat occiput & brachiocephaly with facial assymetery (fig. 1, 2 & 5). Eyes exhibited downward slanting palpebral fissures, hypertelorism. Flat depressed nasal bridge with prominent bulbous tip. Nasal septum is deviated. Ears are low set than normal (fig. 1 & 2).

Lips are incompetent. Syndactyly of second and third finger of left & right hand. Feets are hypoplastic (fig 3&4).

Intraoral examination revealed missing 12, 18, 22, 28, 38, 48. Upper right canine is labialy placed. Upper anterior are forwardly placed with forwardly bulging alveolus with malocclusion. Prominent mandible and hypoplastic maxilla. Lower anteriors are crowded.

Radiographs show midface hypoplasia. Hypertrophy of mandible on right side. Anterior ramus is narrower then posterior. Upper left third molar is impacted (fig 6&7).

Discussion

Ideally treatment of apert syndrome starts at birth with the proper diagnosis, identification of the child's individual needs, and the proper facilities to administer what is needed. A multidisciplinary approach is necessary due to the complex nature of the syndrome.

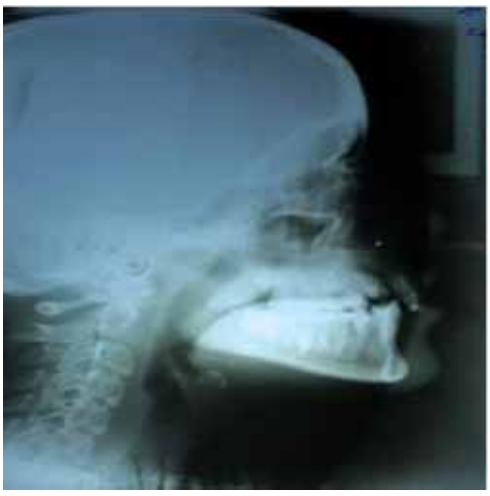

Fig.6 Showing Midface hypoplasia.

Fig.7 Showing Hypertrophy of mandible on right side. Antreior ramus is narrower then posterior. Upper left third molar is impacted

A craniofacial team, neurosurgeon, neurologist, ENT, audiologist, speech pathologist, oral surgeon, psychologist, and orthodontist. The team approach is essential to determine the best collaborative plan for the deficiencies of the child.

Supportive treatment

No treatment for underlying disorder.

Multidisciplinary approach.

Pediatrics, orthopedics, neurology, plastic surgery

Psychology, neurosurgery, ENT, orthodontics, audiology speech therapy, oral surgeon, cardiologist and ophthalmologist.

Genetic counseling

Surgery

Surgical repair of craniosynostosis and elimination of complications such as elevated intra cranial pressure corrective surgery for syndactyly of hands, cosmetic surgery for correction of facial assymmetry. Orthodontic and orthognathic correction for labially placed upper anterior, deep bite and hypo plastic maxilla.

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Management of odontogenic keratocyst

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Introduction

A cyst has been traditionally defined as a pathologic epithelium-lined cavity usually containing fluid or semisolid material (Killey and Kay – 1966). The presently accepted definition is the one coined by Kramer in 1974 as 'a pathologic cavity having fluid, semisolid or gaseous content and it is frequently, but not always lined by epithelium'.

These cysts develop either by proliferation of epithelial remnants in the jaw or by cystic transformation of neoplastic tissue.

The odontogenic keratocyst is a histopathologically and behaviourally, a unique, specific entity. It is the most aggressive and recurrent of all odontogenic cysts.

Mainly two types: *Primordial origin odontogenic keratocyst* (about 60%)- arising from dental lamina rests or from basal cells of oral epithelium And *Dentigerous origin odontogenic keratocyst* (about 40%) arising from the reduced enamel epithelium of dental follicle. Recurrences are more frequently seen after the treatment of primordial origin type.

OKC have a peak incidence in the teenage and 20s, but it can occur at any age.

Odontogenic Keratocysts are generally found more frequently in males than in females and this sex predilection is more pronounced in blacks than in whites. The mandible is found to be involved far more frequently than the maxilla (about 75%). About one-half of all keratocysts occur at the angle of the mandible extending to various distances.

The OKC involves approximately 11% of all cysts in the jaws, and is most often located in the mandibular ramus and angle. This lesion can be associated, although not in all cases, with an impacted third molar. Radiographically, it appears as a unilocular or multilocular lesion with a scalloped contour.

Clinical features

Most of the cases will be asymptomatic. Patients with odontogenic keratocysts may complain of pain, swelling or discharge. Paresthesia of lower lip and teeth and pathologic fractures of the mandible do occur, but are rare. Larger cysts will cause expansion and may cause tooth mobility. Many patients are free of symptoms until the cyst has reached a large size, involving the entire maxillary sinus or mandibular ramus, including the condylar and coronoid processes. This is because the odontogenic keratocyst tends to extend in the medullary cavity and clinically observable expansion of bone occurs late. The rate of bone resorption at inferior border and cortex will be lower than the intermedullary trabacular bone. So, they extend further anteroposteriorly than buccolingually. Toller (1967) viewed keratocysts as benign neoplasms. They tend to extend along cancellous component of the bone without producing noteworthy expansion of cortical plates. They frequently reach a large size, particularly at the angle of the mandible, before they are diagnosed. Odontogenic cysts are frequently found to cause displacement of the roots of associated teeth.

Some larger cysts will rupture and leak keratin in to the surrounding tissue, provoking an intense inflammatory response causing pain and swelling.

Normally asymptomatic lesions are rendered painful by infection, which prompts the patient to seek treatment.

Radiologic features

The classic appearance of an odontogenic cyst in the jaw is as a well-defined round / oval radiolucency, circumscribed by a sharp radio-opaque margin. However, there are variations depending on site and type of cyst.

Infection of a cyst causes a decrease in radiolucency and it blurs the radio-opaque margin. Malignant transformation, which is a rare phenomenon, also produces similar results. While the cyst heals after treatment, the radio-opaque line fades, as the cancellous bone deposits from the periphery.

Aspiration

Apart from clinical and radiologic features, an important aid in the diagnosis of a cyst is aspiration technique. A wide bore needle should be used for the procedure, which may be done under local anaesthesia. A diagnosis of a cyst can be confirmed if aspirate is light straw coloured fluid containing keratin debris. These crystals appear shining when the fluid is taken on a dry swab. This is seen in dental cysts only.

When infected, the fluid becomes turbid and yellow. In OKC, the colour and consistency of fluid vary depending on the concentration of suspended keratin. Sometimes, it will be very thick. There is a risk of introducing infection during aspiration and ideally when this is performed, it should be at least 48 hours preoperatively and only under antibiotic cover.

Potential complications in OKC

The potential complications are; cystic enlargement causing weakness of jaw, infection, pathologic fracture, recurrence after treatment and malignant transformation.

Fig. 1 Pre operatve view (extra oral)

Fig. 2 Preoperative view (Intra oral)

Fig. 3 Pre operative OPG

Fig. 4 Intra operative (After enucleation)

Fig. 5 Intra operative (Bone graft)

Fig. 6 Post operative OPG (2 weeks)

Recurrences

The keratocyst has a particular tendency to recur after surgical treatment. The recurrence rate in various reported series is found to vary from 5% to 70%. A high recurrence rate was noticed when cysts were located in the angle or ascending ramus of the mandible. Those whose radiographic appearances are multilocular have a higher recurrence rate than those with a unilocular appearance.

· Recurrence related to incomplete cyst removal – the remnants of OKC behaves like a tumor, because they can continue to grow and recur without a stimulus. This will become radiographically evident in 18 months.

· Recurrence due to new primary keratocyst- the activated dental lamina rests or activated oral basal epithelium develops in to a second cyst. This can occur (recur) at any time.

Histopathology

A keratocyst is a developmental abnormality arising from odontogenic epithelium, the sources being dental lamina or its remnants.

The linings of odontogenic keratocysts are rarely received intact in the laboratory. They are usually thin-walled, collapsed and folded. However the histologic features are characteristic.

1) They are lined by a regular keratinised stratified squamous epithelium, which is usually about 5-8 cell layers thick and without rete pegs. The type of keratin seen is parakeratin in 80-90% of cases.

2) The epithelium is uniformly thick, with a well-defined, often palisaded basal layer consisting of columnar or cuboidal cells, or a mixture of both.

3) The nuclei of columnar basal cells tend to be oriented away from the basement membrane, and in the majority of cases, are intensely basophilic.

4) Desquamated keratin is present in most of the cyst cavities.

Treatment

1. Enucleation and curettage
2. Marsupialisation
3. Resection

The general approach to treating OKC is enucleation and curettage. Because of the high recurrence rate, simple enucleation is not considered to be sufficient. Wide access enucleation and curettage of the lesion along with a small margin of surrounding bone would be a more reasonable plan. The wide access frequently requires a complete lateral decortication so that the entire cyst can be directly visualized during its removal and can be removed in one unit. Blind curettage in a bony cavity will cause incomplete removal of the cystic lining and will cause recurrence. Epithelial islands and/or microcysts are found in approximately 50% of the cases in the overlying, attached mucosa. It is, therefore, of paramount importance to locate the area where the cyst is attached to the mucosa and to excise that part of the mucosa, preferably in conjunction with enucleation of the cyst. In failing to do so, in approximately 50% of cases one will leave behind possible sources of recurrent OKCs, or better to say newly formed cysts. Curettage can be done with sharp curettes. Other curettage mechanisms are physical curettage with rotary bur, thermal curettage with cryotherapy and chemical curettage with Carnoys solution.

Fig. 7 Post opearative view

Fig. 8 6 month Post operative

Fig. 9 OPG (one year Post operative)

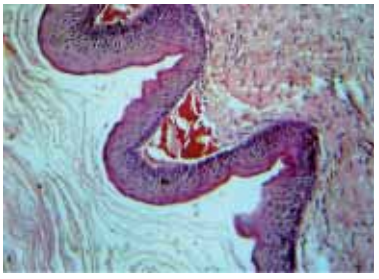

Fig. 10 Histopathology

Block resection, with or without preservation of the continuity of the jaw- this method is specifically indicated in two instances; when there is multiple recurrence after enucleating and curettage or in case of large multilocular cyst in which an enucleation and curettage procedure would result in near continuity loss by itself.

Marsupialization - This treatment can also be followed by removal of the cyst wall after this has changed by metaplasia. Done in case of large cysts particularly in old or medically compromised patients. But this is not a completely safe method.

Voorsmit, Stoelinga and Van Haelst (1981) advised devitalising any fragments of lining left in the cavity after enucleation, either by swabbing the cavity with Carnoy solution or by freezing the bony wall. Carnoy solution is a powerful histological fixative made by mixing chloroform (3 parts), absolute alcohol (6 parts) and glacial acetic acid (1 part).

In case of large defects, when pathologic fractures are possible or there would be considerable loss of contour in a future denture-bearing area, bone grafting can be done to obliterate the cavity and stimulate osteogenesis.

A risk of bone grafting cyst cavities is the possibility of bone fragments becoming infected if wound breakdown occurs. The risk of failure in these cases is greater than when grafts are introduced after resection of a segment of mandible, because of the greater difficulty in ensuring watertight wound closure.

Follow-Up

The recommended follow-up for OKCs is once a year the first 5 years postoperatively. The literature suggests that most recurrences will present in the first 5 years after primary treatment. Because recurrences or newly developed OKCs may also present late, a follow-up once every 2 years thereafter is recommended.

Case report

A male patient, 17 years of age reported with complaints of pain and swelling in the lower left front tooth region since 10 days. He had a history of tooth ache in the lower anterior region about 1 year back which was subsided after taking some pain killers. The present complaint started about 10 days back. He developed fever, chills and tooth ache about 10 days back for which he consulted a physician. He was provisionally diagnosed as having "Viral fever" and medications were given. The fever and chills reduced but the dental pain and swelling increased. So he was referred to our centre.

On examination patient was febrile. There was a single diffused swelling in chin region extending posteriorly up to the left angle and inferiorly up to the submandibular region. The swelling was soft in consistency and tender on palpation. There was paresthesia in the area of distribution of left mental nerve.

Mouth opening was normal. Obliteration of labial/buccal sulcus was noted from '31' to '35' region. All the permanent teeth were present. There was spacing and drifting of the mandibular anterior in the left quadrant. '33'showed grade II mobility. Pus discharge from the labial sulcus of '33' was observed. The lingual cortical plate was intact on palpation. OPG showed a well defined multilocular radiolucency extending from '42' to '36' region with sharp radio opaque margins and without involving the lower border of mandible. The roots of '31' and '32' were pushed mesially. There was no root resorption.

On aspiration there was thick straw coloured aspirate. Based on the clinical and radiological findings a provisional diagnosis of 'infected Odontogenic keratocyst' was made. Differential diagnosis was Ameloblastoma and Basal cell nevus syndrome. Incisional biopsy was done from the anterior lesion under LA and the biopsy report confirmed the provisional diagnosis of Odontogenic keratocyst. Patient was advised to undergo surgical management.

Surgery was done under general anaesthesia with Nasal intubation. Degloving Incision was placed from '44' to '37'region. Extraction of teeth from '42'to '36' done. Enucleation of the anterior cyst along with the excision of the overlying mucosa was done. Labial corticectomy was done in the posterior cyst region to gain access. Cyst was removed in total. Both the lesions were marked separately and sent for histopathological examination. The walls and margins of the bony defect was trimmed with rotary bur. Thorough irrigation done with normal saline. The bony cavity was then examined for any remaining lining tissue. Ribbon gauze soaked in Carnoy solution was kept in the bony socket for 3 minutes for chemical curettage. This was followed by copious irrigation with Normal saline. The bony defect was packed with particles of 'G' bone graft. Flap was approximated and single layer closure done with 3-0 vicryl.

Post op period was uneventful. Patient regained the mental nerve sensation completely within 2 months. There is radiological evidence of new bone formation in and around the bony defect. We are doing periodic clinical radiological follow-up for the patient.

Histopathology report

Both the samples show more or less similar histologic appearance. Section show tissues lined by parakeratotic Stratified squamous Epithelium and connective tissue. Contents of cystic cavity are also seen in few places. The lining epithelium is uniform in thickness having 8-10 cell layers. The basal layer exhibits characteristic palisaded pattern of cells presenting the "picket fence" appearance. The nuclei of these cells are deeply stained and uniform in diameter. The luminal surface is typical corrugated and parakeratotic. The lumen is filled with onion ring like keratin. There is mild infiltration by chronic inflammatory cells in few areas.

Discussion

Cystic lesions are very common in jawbones and it includes those of both odontogenic and non-odontogenic origin. Odontogenic cysts are unique to the jawbones, and it often results in considerable destruction of these bones. The diagnosis of these lesions is often delayed because of their innocent presentation. By the time of diagnosis, most of the cyst will be enlarged considerably weakening the bones. This leads to various sequelae such as fractures. Other complications eventhough rare such as malignant transformation of cystic lining is of considerable importance. Of the various surgical modalities available, enucleation with primary closure should be treatment of choice wherever possible because of the least unfavourable sequelae. The odontogenic keratocyst is a histopathologically and bahaviourly unique, specific entity. It is the most aggressive and recurrent of all odontogenic cysts with high recurrence rate. Diagnosis is usually made based on the clinical, radiological and aspiration findings. Large lesions and multilocular lesions should undergo an incisional biopsy to rule out a neoplasm. The general approach to treating OKC is enucleation and curettage. The alternative therapies of marsupialisation and resection can also be done, but they have specific limited indications. Several studies suggest that the largest number of recurrences of OKC occur during the first 5 years after the initial treatment period (about 70%). For this reason the annual radiographic control of these patients is recommended for an undetermined time.

Conclusion

In our opinion, drastic operations such as continuity resection are not warranted in managing OKCs because of patient-bound factors. The described method gives rise to a very low recurrence rate. However, close follow-up is required for evaluating the success of treatment

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Bilateral Fourth molars with paramolars in the maxilla

* Omal P.M., ** Vimal Jacob, ** Jagan Lonapan, *** Anil Kurian

Abstract

Fourth molars or Distomolars are supernumerary teeth that are located distal to the third molar. The occurrence of these supernumerary teeth is not very common. This paper describes an unusual occurrence of 2 distomolars in the maxilla with bilateral paramolars.

Introduction

Supernumerary teeth[1,2,7] are those teeth which develop in addition to the normal counterpart. The occurrence of supernumerary teeth is not uncommon.[7] Preferred location of supernumerary teeth is in the maxilla, mostly in the incisor region followed by molar area.[7] Depending upon the location, supernumerary molars can be divided into 2 categories-distomolars and paramolars[1,2,7]. Distomolars or fourth molars are supernumerary teeth located distal to the third molars, while paramolars are supernumerary teeth located on the side of the molars.

Case report

A 19 year old female patient reported to the Department of Oral Medicine and Radiodiagnosis, Pushpagiri College of Dental Sciences, Tiruvalla, Kerala, India with a complaint of irregularly erupting teeth in the upper left and right posterior regions of the jaw since 1 month. Currently patient is aware and has discomfort due this. Her medical and family histories were non contributory. On general examination patient had an average built with normal gait.(fig 1). Extra oral examination revealed no abnormalities. Intra oral examination revealed bilateral para molars seen bucally in relation to 17 and 27 regions (fig 2,3). IOPA of 16, 17, 26, 27 regions and an OPG were taken. Both IOPA and OPG (fig 4,5,6) revealed the presence of bilateral disto-molars (fourth molars) in addition to the para-molars which was confirmed through an maxillary cross sectional radiograph.(fig 7) The disto-molars were not evident clinically(fig 2,3).

The incidental finding of distomolars was conveyed to the patient and a treatment plan extracting the two paramolars and surgical removal of the two distomolars were decided. Since the patient was concerned only with the cosmetic problems associated with paramolars, patient was willing to extract the paramolars only and not the distomolars due to some apprehension from the surgery and also it was not causing any problems as of now. The paramolars were extracted one by one within a period of two weeks and post extraction follow up after one month showed good uneventful healing.(fig 8,9). Currently she has been advised to undergo a regular dental check up once in every six months for evaluation of her distomolars that was not removed due to her unwillingness.

Discussion

Supernumerary teeth are those teeth which develop in excess number to normal teeth. They sometimes maintain the same morphology of the corresponding location of the teeth where it is formed or sometimes are of different morphology. They can be single or multiple, unilateral or bilateral and seen in either jaw or both. They are more frequent in maxilla than in mandible.[1,2,3] Prevalence of supernumerary teeth reported in Caucasians is between 1% and 3 % with slight increase prevalence in Asians[8]. Mesiodens are the most common supernumerary teeth followed by maxillary fourth molars and mandibular fourth molars and paramolars located adjacent to the molars.[1,2,8] Presence of a fourth molar is rare and such a tooth is almost invariably impacted[9]. Supernumerary teeth may be found in both the primary and permanent dentition, although they are more common in the permanent dentition[9]. Most of the supernumerary teeth will erupt in the first two decades of life.[1,2,3] Primary teeth does not show any gender predilection but in permanent the frequency in males are twice as that of females.[1]

Though the exact mechanism by which supernumerary teeth are developed is still unclear, two theories are proposed in attempt to explain the development of supernumerary teeth.[3] One theory states that supernumerary teeth arise from a third tooth bud arising from the dental lamina near the permanent tooth bud or possibly by splitting of the permanent bud itself. The other well supported theory is the hyper activity theory which states that the supernumerary teeth are a result of local, independent, conditional hyperactivity of the dental lamina. Heredity do play an important role in the development of supernumerary teeth. Some conditions such as cleft lip cleft palate, cleidocranial

Fig. 1 Extra oral photograph of the patient.

Fig. 2 Paramolar in relation to 17 region

Fig. 3 Paramolar in relation to 27 region

Fig. 4 IOPA -17 region showing paramolar and distomolar

Fig. 5 IOPA-27 region showing paramolar and distomolar

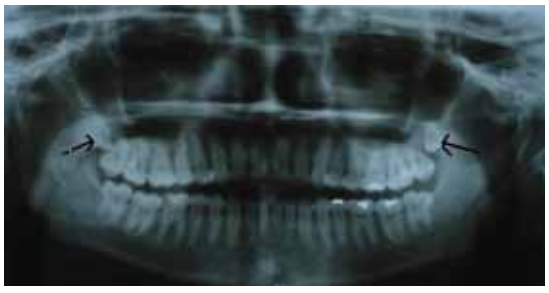

Fig. 6 OPG showing bilateral distomolars

dysplasia and Gardner's syndrome are seen associated with supernumerary teeth. It is very rare to see multiple supernumerary teeth in individuals with no associated disease or syndromes.[1]

Supernumerary teeth are classified according to their shape and location.[1]

Conical
Tuberculate
Supplemental
Odontome
Mesiodens
Paramolars
Distomolar

Supernumerary teeth support the phylogenetic or atavistic theory[6] of evolution (emergence of ancestral forms in a living individual). Supernumerary teeth can cause some aesthetic as well as functional problems for the patient. Presence of supernumerary can cause delayed eruption or resorption of adjacent teeth. It can also result in displacement of teeth and associated crowding, diastema formation and malocclusion[1,8]. Supernumerary teeth predispose the area to sub acute pericoronitis, gingivitis, periodontitis, absess formation, development of cysts and tumors etc.Co existence of distomolars with paramolars is rare. Koo S, Salvador PS, Ciuffi Júnior J, de Silva Júnior AR5 has reported a case where there is a bilateral maxillary 4th molars with supernumerary tooth in the maxillary canine region. Our case is similar to one reported by Koo S, Salvador PS, Ciuffi Júnior J, de Silva Júnior AR, however supernumerary teeth (paramolars) were seen in the maxillary molar region rather than in the maxillary canine region.

Early treatment is essential to minimize the complications associated with it. If the extraction is delayed or not possible due to any of the clinical reasons or due to patient's unwillingness, a regular monitoring is necessary to detect early pathologic changes.Koo S, Salvador PS, Ciuffi Júnior J, de Silva Júnior AR5 have reported a case where a fourth molar two years after extraction of third molar have migrated more occlusal and mesial to a safer position favorable for extraction.[5] indicating an alternative choice of treatment rather than the conventional follow up method.

Conclusion

Bilateral Distomolars along with paramolars is rare. Distomolars may not be clinically evident but are detected as an incidental finding on a Radiograph. Though patients may not be concerned with presence of distomolars regular follow up is necessary to avoid future complications. To the best of our knowledge only few cases have been reported of Bilateral Distomolars with paramolars.

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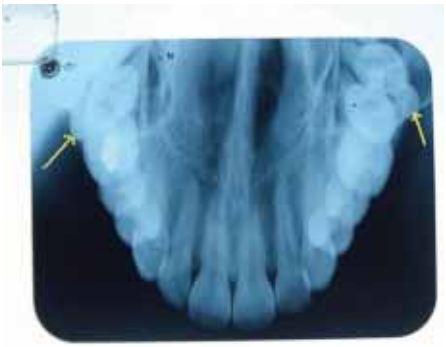

Fig. 7 Maxillary cross sectional occlusal radiograph showing bilateral buccally erupted paramolars.

Fig. 8 Follow up photo after 1 month showing uneventful healing in 17 region.

Fig. 9 Follow up photo after 1 month showing uneventful healing in 27 region.

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Case report

Amelogenesis imperfecta

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Abstract

Amelogenesis imperfecta is a tooth development disorder in which the teeth are covered with thin, abnormally formed enamel. Both primary teeth and permanent teeth are affected. The enamel of the tooth is soft and thin. The teeth appear yellow and are easily fractured. If left untreated this affects the appearance of the teeth. The treatment depends on the severity of the problem.

Introduction

Amelogenesis imperfecta is a term used for a clinically and genetically heterogeneous group of conditions that affect the dental enamel, occasionally in association with other dental, oral and extraoral tissues. The enamel may be hypoplastic, hypomineralised or both and teeth affected may be discoloured, sensitive or prone to disintegration. The exact incidence of amelogenesis imperfecta is uncertain. The prevalence varies from 1:700 to 1:14,000, according to the various studies.[1]

Amelogenesis imperfecta presents with abnormal formation of the enamel or external layer of teeth. Enamel is composed mostly of mineral that is formed and regulated by the proteins in it. Amelogenesis imperfecta is due to the malfunction of the proteins in the enamel, ameloblastin, enamelin, tuftelin and amelogenin.[2]

Case Report 1: A 19 year old female patient reported to us with complaints of discoloration and chipping of teeth since past ten years. Patient's medical and family history was noncontributory. The patient had visited a dentist in her native who referred her to our department. On examination there was an anterior open bite was noticed. Generalized yellowish discoloration was observed. Chipping of the incisor edges of the maxillary anteriors, prominent mamelons of the mandibular anteriors and spacing in between the teeth were observed (Fig. 1). Mandibular and maxillary posteriors also showed yellowish discoloration and occlusal caries. Incisal edges of the maxillary anteriors were decayed (fig. 2 & 3). An orthopantomograph showed lack of differentiation between the enamel and dentine and loss of contact points (fig. 4). Based on these classic features the patient was diagnosed with Amelogenesis Imperfecta.

Case Report 2: A 17 year old female patient reported to our department with complaints of discolored teeth since childhood. Patient stated that her milk teeth (deciduous teeth) were also yellowish in colour. Patient's medical and family history was non contributory. On examination there was generalized yellowish discoloration of the enamel with fractured Incisal edges, cusp tips and decayed occlusal surfaces of the posteriors and generalized spacing (Fig. 5 & 6). An orthopantomograph showed lack of differentiation between enamel and dentin and generalized loss of proximal contacts (Fig. 7). Based on these pathognomic features diagnosis of Amelogenesis Imperfecta was made.

Discussion

Amelogenesis imperfecta can have different inheritance patterns depending on the gene that is altered. Most cases are caused by mutations in the enamelin gene [ENAM] and are inherited in an autosomal dominant pattern. This type of inheritance means one copy of the altered gene in each cell is sufficient to cause the disorder. Amelogenesis imperfecta is also inherited in an autosomal recessive pattern; this form of the disorder can result from mutations in the ENAM or MMP20 gene. Autosomal recessive inheritance means two copies of the gene in each cell are altered.[3]

A report showed a relationship between the regulation of ameloblast differentiation and components of the bone morphogenetic protein (BMP) pathway. There is at least the potential for mutations in this pathway to account for some cases of amelogenesis imperfecta. So far no mutation in the amelotin gene has been related to amelogenesis imperfecta.[4,5]

Four major categories based primarily on phenotype (hypoplastic, hypomaturation, hypocalcified, hypomaturation-hypoplastic with taurodontism) subdivided into 15 subtypes by phenotype and secondarily by mode of inheritance.[6]

Based on mode of inheritance this condition is classified as Phenotype (Clinical and Radiographic), Molecular defect (when known) and Biochemical result (when known).[7]

Clinically, a skeletal anterior open bite is seen in approximately 50% of patients with Amelogenesis Imperfecta of either X-linked or autosomal inheritance. Such an association might be regarded as a syndrome but this does not appear as such in any classification. The significance of this common association has yet to be elucidated.[1]

Diagnosis involves exclusion of extrinsic environmental or other factors, establishment of a likely inheritance pattern, and recognition of phenotype and

Fig. 1 Anterior open bite and yellowish discoloration of teeth.

Fig. 2 Discoloration and enamel chipping of maxillary posteriors.

Fig. 3 Discoloration and enamel chipping of mandibular posteriors

Fig. 4 An orthopantomograph showing lack of differentiation between the enamel and dentine and loss of proximal contact points.

Fig. 5 Yellowish discoloration of enamel with fractured incisal edges in maxillary teeth.

Fig. 6 Discoloration and fractured cusp tips and decayed occlusal surfaces in mandibular teeth.

Fig. 7 An orthopantomograph showing lack of differentiation between enamel and dentin and generalized loss of proximal contacts.

correlation with the dates of tooth formation to exclude a chronological developmental disturbance.

Radiographically the enamel may appear totally absent. When present may appear as a thin layer, chiefly over the tips of the cusps & on the interproximal surfaces. In some cases calcification is so much affected that enamel & dentin seem to have the same radio density, making differentiation between the two difficult.

Treatment of Amelogenesis imperfecta depends on the specific type and the character of the affected enamel. Treatments range from preventive care using sealants and bonding for esthetics to extensive removable and fixed prosthetic reconstruction. Composite resin or porcelain veneers can be bonded to the anterior teeth when the incisor shape, size and/or color require modification. Orthodontic therapy may be used to partially close the interdental spaces prior to restoration in those individuals having small square shaped incisors and interdental spacing that is too excessive to close with restorative therapy alone.

Conclusion

Patient affected with amelogenesis imperfecta have teeth with abnormal yellow, brown or grey in colour. The teeth have a higher risk for dental caries and are hypersensitive to temperature changes. This disorder can affect any number of teeth. These conditions are often embarrassing, distressing and lead to social exclusion and ridicule. Sensitive interview and early supportive intervention are essential along with other modes of treatment.

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Case report

Prosthetic rehabilitation of upper anterior teeth with severe proclination, diastema and decreased bone support

* Anand K.S, ** Vimal Kumar, *** Sreelekha, *** Naveen Chandran

Abstract

Anterior proclination due to loss of posterior teeth is commonly seen in some patients with decreased bone support. Planning a fixed partial denture in such patients is beneficial from both patient's psychological point of view and treatment point of view. Correcting the crown-root ratio enhances the stability of the prosthesis and the use of post and core to correct the angulation of the proclined teeth improves the esthetic look of the patient.

This paper presents a case report of a young female patient with high lip-line, severe proclination, diastema and decreased bone support restored with a glass fiber post and all-ceramic fixed partial denture.

Loss of upper anterior teeth is a traumatic experience for many patients. Pattern of tooth loss usually starts with loss of few posterior teeth, supra eruption, mesial migration followed by anterior traumatic occlusion leading to flaring up of anterior teeth. It is not uncommon to find such patients with severe proclination, increased spacing and decreased bone support who turn up at the dental office just before transition to a completely edentulous condition. Anterior fixed rehabilitation of such clinical conditions demand a lot of biological, mechanical and esthetic factors that need to be attended within a compromised spectrum.

Case Report

A 30 year old female patient reported to the clinic with chief complaint regarding proclined and widely spaced upper anterior teeth. On clinical examination it was found that her upper incisors were severely proclined with wide spacing between them (fig.1). Canines and premolars were intact but her molars were missing. In the lower arch the lower incisors were periodontally weak and needed extraction. Her premolars and canines were intact but her molars were missing. Temporary immediate partial denture was given after extraction of lower incisors. Pre-operative records like diagnostic casts, models for mock up preparation and wax up, IOPA radiographs, etc were taken.

IOPA radiographs revealed decreased bone support and a crown- root ratio which was not favourable for fixed prosthesis. Mock up preparation done on the pre-operative model[1] showed that by reducing the crown height to half it was possible to obtain a favourable crown root ratio and hence stability of the prosthesis. By modifying 12 & 22 to look like canines, two lateral incisors were planned to be kept in the space between the existing laterals and centrals.

After shade selection intentional root canal treatment was done for all four upper incisors using rotary Protaper (fig.2). Post preparation was done in relation to 21 with the help of peeso reamers, as it required a glass fiber post.

Steps in cementation of glass fiber post.

Glass fiber post (Refor post, Angelus) was placed in the root canal. A point 2-3mm from the opposing contacting tooth is marked and the post is cut with burs at high speed. Post is then cleaned with alcohol and dried with air. (fig.3). Silane (Silano, angelus) is then applied with a brush and air dried after 1 minute[2]. Canal space is then washed, dried and etched with 37% phosphoric acid for 15 seconds. After rinsing it was blot dried to keep moist.

Manipulation of resin cement- (Esthetic Resin cement- Calibra, Dentsply)

1-2 drops of adhesive and same amount of self cure activator is mixed well with a brush tip and generously applied to the post space (fig.4) It is then air dried till the surface has a uniform glossy appearance[3]. Now light curing is done for 10 seconds. The mixture is then applied to the post and gently air dried for 5 seconds. Light curing is again done for 10 seconds.

Equal amounts of light shade and regular viscosity is mixed and applied to the post as well as the root canal with a file. The post is then seated and uniform pressure is applied[4]. Pre-curing is done for 10 seconds to remove excess flash. Light curing is again done for 20 seconds and core build up was done with composite resin (3M ESPE).

Tooth preparation was done for All-ceramic fixed Partial dentures with heavy shoulders (fig.5). Both the lateral incisors were modified to look like canines. Composite core of 21 which received the post was

Fig.1 Pre-operative view

Fig. 2 IOPA of RCT Treated abutments

Fig.3 Silane application

Fig. 4 Manipulation of resin cement

Fig. 5 Post and core with modified preparation

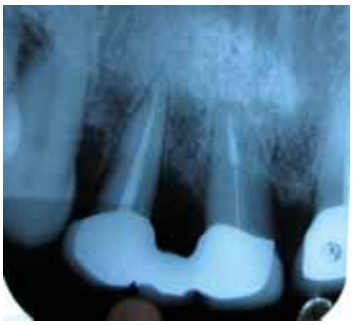

Fig. 6 IOPA radiograph of fiber post

also modified (fig.6). Two Fixed Partial dentures supported by 11, 12, 21 and 22 were planned. Impression was made using polyvinyl Siloxane, one-stage putty wash impression (Aquasil, Dentsply). Wax up trial was done to check the esthetic harmony. All ceramic Fixed Partial dentures (Lava Essential, zirconia, 3M ESPE) were cemented with glass ionomer cement (fig.7, fig.8).

Discussion

Flaring up of anterior teeth due to loss of posterior teeth and deteriorating periodontal condition is quite common in our society and needs an immediate and well planned treatment planning. Correcting the crown- root ratio to stabilize the abutment and thereby decreasing the occlusal loading[5] of the prosthesis to function within the esthetic and mechanical parameters, offers a good opportunity for the patients to save the remaining anterior teeth before transition to a completely edentulous condition. This is very important from patient's psychological and treatment points of view. The optimum crown – root ratio for a tooth to be utilized as a fixed partial denture abutment is 2:3. A ratio of 1:1 is the minimum ratio that is acceptable for a prospective abutment under normal circumstances. However, there are situations in which a crown-root ratio greater than 1:1 might be considered adequate. If the occlusion opposing a proposed fixed partial denture is composed of artificial teeth[6]. The following factors have to be considered when fixed prosthesis is planned on a severely proclined upper anterior teeth with diastema and decreased bone support.

1. Periodontal status of the remaining teeth which may require only an oral prophylaxis or at times may require a flap surgery. .
2. Degree of tooth preparation needed to correct the crown- root ratio and obtain acceptable stability and esthetic harmony. This can be done by mock preparation of the pre-operative model and IOPA radiographs.
3. Decreasing the occlusal loading by relieving traumatic occlusion and eccentric contacts.
4. Need for intentional root canal treatment alone or combined with post and core to correct the angulations of the proclined teeth.
5. Need for All- ceramic crowns in case of patients with high lip line.

Conclusion

Fixed Prosthetic rehabilitation of periodontally weak teeth after restoring the periodontal health and correcting the crown-root ratio offers a great advantage from both patient's psychological point of view and treatment point of view. Stability of the prosthesis can be enhanced and angulation can be corrected by using post and cores. All ceramic crowns offer better esthetic advantage but need to be supported by fiber posts with esthetic core. Posterior rehabilitation in such cases are mandatory and proper follow- up care and oral hygiene maintenance is essential for the success of the treatment.

Fig. 7 All-Ceramic FPD'S

Fig. 8 Post-Operative view

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Double lateral bridging flap - a one step technique for multiple recession coverage

* Seba Abraham

Abstract

Gingival recession is one of the most common esthetic and functional concerns associated with periodontal tissues. Hence, many surgical techniques involving autogenous tissue grafting, various flap designs and guided tissue regeneration [GTR] have been introduced to treat gingival recession with reasonable amount of success, especially in isolated gingival recession. Treating multiple recession is a real problem. This case report describes the technique of double lateral sliding bridge flap for multiple recession coverage. The advantage of this technique is that this does not require a second surgical site and is predictable in treating multiple gingival recession. But managing gingival recession involving multiple teeth is still a challenge to the clinicians.

Introduction

Gingival recession by definition is the displacement of the gingival margin apically from the cementoenamel junction (CEJ) or from the former location of the CEJ where restorations have distorted the location or appearance of the CEJ.[1] Recession can be the result of disease, injury or treatment.

The prevalence of gingival recession varies with age. It is more common in males than in females[2] and it is more prevalent and severe on buccal than interproximal surfaces of teeth[3]. Gingival recession is a matter of concern for both patients and dental professionals, especially when exposure of root surface is linked to deterioration in esthetic appearance and increase in dental hypersensitivity. The dentist's ability to correct or treat these problems had always been his greatest asset.

Although many techniques have been developed and tried for treating isolated gingival recession with reasonable amount of success, gingival recession involving any teeth has always remained the real problem. The various surgical approaches for multiple root coverage reported in the literature are few and they include free gingival graft[4], free connective tissue graft[5], coronally advanced flap[6], combination of connective tissue grafting with coronally positioned flap[7]. However, the combination of connective tissue grafting with coronally advanced flap have been showed to demonstrate highest success rate. All techniques mentioned above resulted in two surgical site except coronally advanced flap. However, E.Marggraf[8] introduced a one step surgical procedure which was described as "Double Lateral Bridging Flap", for coverage of multiple denuded root surface. It is a combination of coronally repositioned flap and vestibulum extension procedure.

This article present a case treated by double lateral bridging technique.

Case report

A 38 year old male patient reported to the Department of Periodontology with the chief complaint of hypersensitivity in relation to upper left quadrant. On examination the patient had Millers Class I recession in relation to 21, 22, 23 and 24 region [Fig.1]. The patient was in good health and gives no history of systemic disease.

Professional scaling and root planning followed by oral hygiene instructions and motivations were carried out to reduce inflammation and possible bacterial infection. Preoperative gingival recession and pocket depth were measured with the help of Williams Periodontal probe. Pre operative plaque index and bleeding index were also recorded.

Surgical technique

The first incision is an arc shaped incision made at a distance of approximately 2 times the gingival recession plus 2 mm [2xGR + 2mm] to the vestibulum [Fig. 2a,2b]. This is necessary to produce a sufficiently wide bridging flap to ensure adequate blood supply. A split thickness flap is then elevated in a coronal direction. The second incision is the sulcular incision and a full thickness flap is elevated in corono-apical direction [Fig.3a,3b]. Lifting this flap will enable to make the third incision at the base of the flap into the periosteum at the mucogingival junction [Fig.4a,4b]. The whole bridge flap is now coronally repositioned to cover the denuded root surface [Fig.5a,5b]. The flap is then sutured and pressed to the alveolar bone [Fig 6a,6b]. Periodontal dressing is not necessary. Antibiotics and analgesics were prescribed and necessary instructions given. Sutures were removed after one week. Case was followed up to 3 months. [Fig.7]

Discussion

Previous studies done by E.Marggraf reported a

Fig. 1 Multiple recession site (Pre operative view)

Fig. 2a Arc shaped incision for split thickness flap

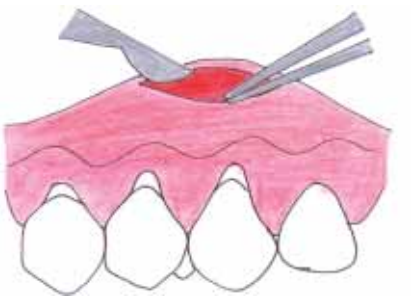

Fig. 2b Diagrammatic representation of split thickness flap

Fig. 3a Sulcular incision

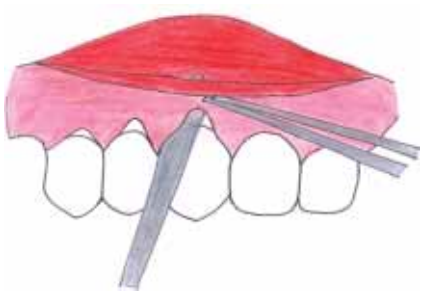

Fig. 3b Diagrammatic representation of Sulcular incision

Fig. 4a Periosteal fenestration at the base of the flap

Fig. 4b Diagrammatic representation of Periosteal fenestration

Fig. 5a Flap coronally displaced

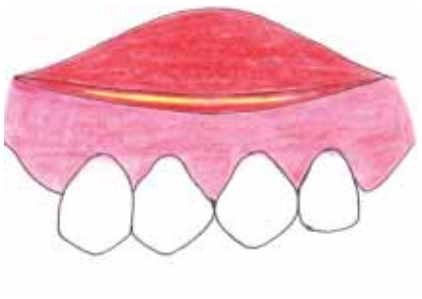

Fig. 5b Diagrammatic representation of coronally displaced flap

Fig. 6a Sutures placed

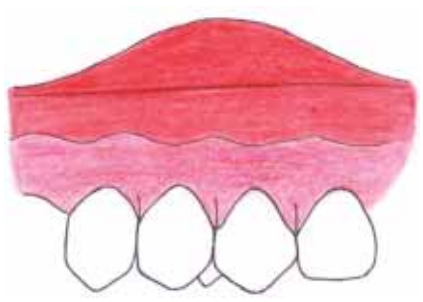

Fig. 6b Diagrammatic representation of suture placed

Fig. 7 Post operative view

coverage of 72% after 2 years and Romanos et al reported a coverage of 70% after a period of 5-8 years. Compared to these results, 80% coverage attained by this technique is quite encouraging and shows that recession up to 6 mm can be covered without increasing the band of keratinized gingiva. It appears that neither the quantity of gingival recession nor the quality of the supporting tissues are a pre requisite for the success of this surgical technique.[8]

However, a completely preserved interdental septum is necessary to get the attachment of the mobilized flap to the root surface. Better results are obtained by sufficient mobilization and suturing of the flap in position. Furthermore, the incidence of recurrent

recession is reduced by simultaneous extension of the vestibulum. No alveolar bone is left exposed and hence rapid healing is achieved.

The major advantage of this technique is that it does not require a second surgical site. Nevertheless, functional widening of the attached gingiva, which is not keratinized is also obtained by this technique. Thus, this method covers the denuded root surface without increasing the width of keratinized gingival.

Conclusion

Double lateral bridging flap may provide a satisfactory solution in the treatment of multiple gingival recession. Further follow up for a long period is necessary to evaluate the success rate of this technique. However, this technique is an alternative when patients are reluctant to provide an additional donor site.

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Case report

Ameloblasoma-Surgical management and prosthetic rehabilitation using implants

* Vishnu Mohan, **Sayed Mohammed Nabeel

Abstract

Ameloblastoma is a true neoplasm of enamel organ type tissue which does not undergo differentiation to the point of enamel formation. It is the second most common odontogenic neoplasm and only odontoma outnumbers it in reported frequency of occurrence. Ameloblastoma occurs in all the areas of jaws,but the mandible (especially the molar-angle-ramus area) is the most commonly affected area. In this case report,patient is a 30 year old male who reported to our college with pain and swelling on the left side of the face since one week. The clinical,histopathological and radiographic examination revealed ameloblastoma of the mandible extending from the left third molar region to the right lateral incisor region. Marginal resection was done retaining 1.5cm of inferior border of the mandible intact and the defect was filled with autogenous graft taken from the iliac crest. One year later,patient was reviewed,OPG was taken which showed 2.5cm of bone formation from the inferior border of the mandible to the mandibular crest. For dental rehabilitation,three implants were placed,one in the incisor region,other in the premolar and the last implant in the molar region. After 6 months,screw retained implant prosthesis was placed.

Introduction

Ameloblastoma is a true neoplasm of enamel organ type tissue which does not undergo differentiation to the point of enamel formation. It is usually unicentric, non-functional, intermittent in growth, anatomically benign and clinically persistent. The average age of diagnosis is in the range of 33-39 years and most cases cluster between ages 20 and 60 years. No significant sex predilection has been reported. It occurs in all the areas of jaws, but the mandible is the most commonly affected area (more than 80% of all the cases). Six histopathologic subtypes of ameloblastoma are recognized namely follicular, acanthomatous, granular cell, basal cell, desmoplastic and plexiform. The different types of treatment modalities that have been employed since include radical and conservative surgical excision, curettage, chemical and electrocautery or a combination of surgery and radiation of which surgical excision is the preferable method.

Case Report

A 30 year old male patient reported to the Department of Oral and Maxillofacial Surgery of Azeezia College of Dental Sciences and Research with the complaint of pain and swelling on the left side of the face since one week. On examination, a diffuse swelling was found which extended from the lower right canine region to the left angle region. On palpation, swelling was firm and tender. Intra orally, mucobuccal fold was obliterated from the mandibular right canine to the mandibular left third molar region. Pus discharge was seen from the gingival crevices of molars. An OPG was taken. The lesion appeared as a multilocular radiolucency in the body of the mandible extending from the right lateral incisor region to the left third molar region. Incisional biopsy was taken from the molar region. Histopathological examination revealed acanthomatous type compression of stellate reticulum into squamoid mass with squamous metaplasia and keratin formation in the central portion of tumour islands suggestive of acanthomatous ameloblastoma. Surgical excision of the tumour and primary grafting was planned. Under GA, a crevicular incision extending from the mandibular right canine to the mandibular left third molar was given with releasing incision on the canine region. Subperiosteal elevation of mucosal flap was done till the inferior border of the mandible. Peripheral osteotomy was done keeping 1.5cm of the inferior border of mandible intact (marginal resection). The lingual cortical plate was trimmed and the resected area was thoroughly debrided. Bleeding inferior alveolar neurovascular bundle was clamped and ligated. Soft autogenous graft was harvested from iliac crest and primary grafting was done. The mucosa was trimmed and water tight closure was achieved with 3-0 vicryl suture. Post operative review was done every 3 months. One year later, orthopantamographic evaluation showed no sites of recurrence and adequate bone formation of about 2.5cm from the inferior border of the mandible to the mandibular crest which was enough for the placement of implants for dental rehabilitation. An implant surgery was planned and an incision was

Pre-operative Photograph

Pre-operative Radiograph

Exposure of the tumour

Surgical area after resection

Prosthesis placed on the cast

Prosthesis try-in

Checking of occlusal high points

Post-operative radiograph after placement of screw retained prosthesis

Checking of occlusal high points

given on the crest of the ridge from the mandibular right canine region to the contralateral molar region. Three implants were placed, one in the incisor region, other in the premolar and the last implant in the molar region. After 6 months, screw retained prosthesis was placed from right lateral incisor to the left third molar region on the osteointegrated implants.

Discussion

Ameloblastoma is the second most common odontogenic neoplasm. It accounts for 18% of all the odontogenic neoplasms. Usually it starts as a slowly growing, painless, hard swelling, but here in this case, the pain and pus discharge was due to secondary infection. So whenever a patient reports to a clinic with a swelling, a thorough case history, clinical, histopathological and radiographical examination should be done. This helps the clinician to make the correct diagnosis and perform the necessary treatment. Marginal resection is favoured in this case, since the inferior border of the mandible was intact and was not invaded by the neoplasm. Primary grafting helps to increase the vertical height of the mandible so that dental implants can be placed in it and later prosthetic rehabilitation of missing teeth can be done to achieve structural and functional balance.

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Case report

Healing of a large periapical lesion with open apex using MTA - A single visit non surgical approach.

*Noushad MC, **Joel G Varghese, **Prajeesh

Abstract

In the past, cases with open apices were often treated over several appointments, using calcium hydroxide, with the hope of creating a "calcific" barrier against which gutta percha could eventually be placed. The treatment could be as long as a year, with still no establishment of any apical barrier formation. These roots were often thinner and, therefore, more brittle; extending treatment over a long period of time without providing a permanent restoration increased the chances of losing these teeth due to fracture. With the favorable histologic response of MTA, this material is the best current choice for this procedure[2]. Completion of these cases in an effective and efficient way allows for permanent restorations to be done in a timelier manner, prolonging the longevity of these teeth. The following case report demonstrates the use of MTA as an obturating material to promote periapical healing of a maxillary central incisor with an open apex.

Introduction

Incomplete root development caused by trauma, caries, or other pulpal pathosis requires special attention and treatment. In such cases, the canal remains large, with thin and fragile walls, and the apex architecture remains divergent. Apexification has traditionally formed an integral part of the treatment of teeth with necrotic pulps with open apices. The aim of the procedure is to limit bacterial infection and create an environment conductive to the production of a hard tissue like or apical plug to prevent extrusion of root filling materials. Calcium hydroxide has become the material of choice for this treatment. Clinical studies have showed that the mean time necessary for the formation of an apical barrier with this technique is more than 12 months[2]. Despite its efficacy, this dressing has several disadvantages[1], such as variability of treatment time, number of appointments and radiographs, difficulty in patient follow-up, delayed treatment and possibility of an increased risk of tooth fracture after extended use of calcium hydroxide. An alternative for the multi appointment apexification procedure is a single-step technique using Mineral trioxide aggregate (MTA). MTA has been used for apexification of immature roots instead of Ca(OH)2 because of its facilitation of normal peri radicular architecture by inducing hard tissue barriers. On the basis of these findings, MTA may be an appropriate material for apical sealing of mature root canals with open apices, which may impose technical challenges in obtaining adequate obturation because of apical perforation, over-instrumentation, resorption or former surgical treatment. Successful prognosis from conservative treatment with MTA for such difficult cases without surgical treatment would be of great benefit for patients.

Case report

A 14-year-old male patient presented with a mild swelling at the apical region of his maxillary right central incisor. Radiographic examination revealed an immature tooth with a wide open apex and a radiolucent area approximately 10x12mm dimension in proximity to the apex of the tooth. Vitality tests of all maxillary anteriors were performed. It showed that all anterior teeth were vital except both central incisors. Since the maxillary left central incisor was completely obliterated endodontic procedure was not carried out. After preparing an endodontic access opening in 11 a No. 70 gutta-percha point was placed in a butt-to-tip direction and a periapical radiograph was taken to determine the working length. The root canal was lightly cleaned with a hand file under irrigation with 2.5% NaOCl. The root canal was then dried with sterile paper points. A thick mixture of MTA (fig 6-MTA-Angelus) was prepared according to manufacturer's instructions and placed to the apical portion of the canal using amalgam carrier[3] and compacted further with the back end of sterilized paper points. The entire root canal was filled with MTA[5]. Finally, the access opening was permanently sealed with a bonded composite resin restoration. The clinical follow-up at 9 months showed the patient functioning well with no reported clinical symptoms and an absence of any sinus tract formation. The radiographic follow-up showed complete healing of the periapical radiolucency and a regeneration of the periradicular tissue.

Fig. 1 Preoperative occlusal radiograph

Fig. 1a Preoperative IOPA radiograph

Fig. 2 After 1 month of MTA placement

Fig. 3 After 5 months

Fig. 4 After 7 months

Fig. 5 After 9 months

Fig 6 MTA - Angelus

Discussion

MTA is endodontic cement that is extremely biocompatible, capable of stimulating healing and osteogenesis, and is hydrophilic. MTA is a powder that consists of fine trioxides (tricalcium oxide, silicate oxide, bismute oxide) and other hydrophilic particles (tricalcium silicate and tricalcium aluminate, responsible for the chemical and physical properties of this aggregate), which set in the presence of moisture. Hydration of the powder results in formation of a colloidal gel with a pH of 12.5. The gel solidifies to a hard solid in approximately 10-15 minutes. This cement is different from other materials currently in use because of its biocompatibility, antibacterial properties, marginal adaptation and sealing properties and its hydrophilic nature. According to Economides et al[2], MTA is a biocompatible material when used in root-end cavities, stimulating reparation of perirradicular tissues, showed no inflammation and the ability of inducing hard tissue formation. MTA has also presented promising outcomes when used for repair of lateral and furcation perforations. Formation of cementum surrounding MTA was observed, even after extrusion of MTA into a furcation. In this clinical case MTA was extruded unintentionally during the procedure (fig2). At the follow up review, the tooth was asymptomatic and radiographically showed repair of the lesion. Healing was achieved without any need of surgical intervention. This might be due to the biologically properties of MTA[1]. This case report confirms MTA acts an apical barrier, not only in apexification cases, but also in failed infected root canal systems. In addition, its superior sealing ability under moist conditions was also an essential requirement for healing in this case (fig5).

MTA can be considered a very effective material to promote regeneration of apical tissue, even in infected fully developed teeth with open apices. The main advantage of this procedure is the high predictability of apical closure with the reduction of treatment time, number of appointments, and radiographs.

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Case report

Granular cell tumour

* Latha Mary Cherian

Abstract

Granular cell tumor is a relatively uncommon benign soft tissue lesion occurring in almost any part of the body. The tongue and the buccal mucosa are the common intra oral sites. The histogenesis of the lesion still remains unknown. However, histochemical and ultra structural studies propose the origin of the lesion from schwann cells, striated muscle, mesenchymal cells, histiocytes and epithelial cells. The tumor generally occurs in middle or old age group of people. As most of the granular cell tumors are benign, surgical excision of the lesion is the treatment of choice. Here a case report of granular cell tumor of the palate in a 13 year old girl is described

Introduction

It is contradictory whether Granular cell tumor is a true neoplasm developmental anomaly or trauma induced lesion[19]

Granular cell tumor (GCT) was first described by Abriko-soff in 1926, he postulated a myogenic origin and termed it as a granular cell myoblastoma[1]. However the muscular origin proposed by Abrikosoff is no longer considered likely hence the term granular cell tumor is preferred to granular cell myoblastoma[2]. Myoblasts[3], histiocytes[4], fibro-blasts[5], undifferentiated mesenchymal cells and schwann cells[2] have been implicated in the histogenesis of GCT.

Case report

A 13-year-old girl presented with a painless swelling on the right side of hard palate which was gradually increasing in size for the last one year.

Clinical examination revealed a diffuse swelling on the right side of the palate opposite to maxillary first &second molar about 1cm from the midline, size about 2.5 cms in diameter. It was firm, nontender and the borders were indistinct. Overlying mucosa was of normal colour and texture. There was no pathology in the adjacent teeth.

Clinical diagnosis of a benign tumour of connective tissue origin was made and incisional biopsy was done.

Histopathology revealed tissue covered by parakeratinised stratified squamous epithelium which showed prominent pseudoepitheliomatous hyperplasia. (Fig. 1,2) Underlying connective tissue contained large round or polygonal cells with small eccentrically placed nuclei and abundant pale eosinophilic granular cytoplasm. The cell borders were indistinct. (Fig. 3) Histopathological features were consistent with a granular cell tumor. The patient was reviewed at periodic interval of two month for next one year for evaluation.

Discussion

Granular cell tumour is a relatively uncommon benign soft tissue neoplasm that occurs in almost any part of the body such as the skin, nervous system, gastrointestinal tract, urinary bladder, female reproductive tract and bronchus[6]. According to Rajendran etal[19]it is not clear whether it is a true neoplasm, developmental anomaly or trauma induced proliferation. The head and neck region are involved in about 45 to 65% of the patients of which 70% account for intra oral lesions.[7] The tongue and buccal mucosa,[19,20,21,22] are commonly affected. Boulos etal[23] reported that tongue accounts for 30% of head and neck lesions. But tumors of the palate, lip, gingiva, uvula and parotid gland[8] have also been reported. In the past only few cases have been reported on the palate. So palate is a rare site for occurrence of granular cell tumour.

There is considerable controversy regarding the histogenesis of this tumour.

Initially, Abrikosoff[1] proposed striated muscular cells as the progenitors of this tumor. Later on, new hypotheses based on immuno-chemistry studies were developed implicating mesenchymal cells, neural crest cells, histiocytes or Scwann cells in the histogenesis of GCT.[22]

Victoria etal[24] have proposed a neurogenic origin on the basis of the close association of the tumor with the nerves and ultrastructural findings of neurofilaments in the granular tumor cells. This theory was supported by Holland et al[25] who demonstrated S-100 staining in Schwann cells but not in myofibers. The S-100 protein is found in neurons and in Schwann cells in the late phase of cell development

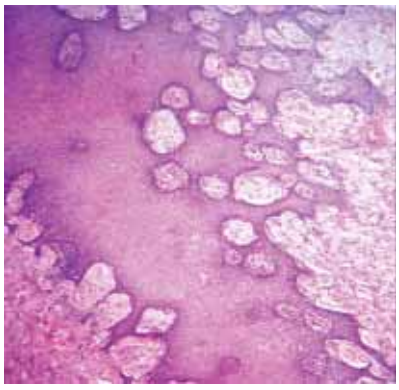

Fig. 1 Psuedoepitheliomatous hyperplasia of the palatal mucosa (H&E 10x).

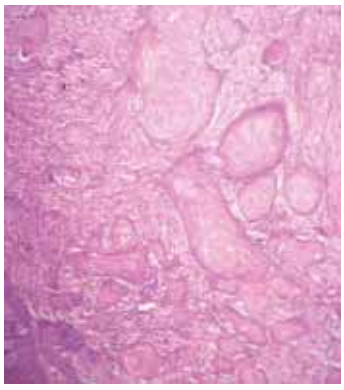

Fig. 2 Severe Pseudoepitheliomatous hyperplasia of the palatal mucosa (H&E 10x).

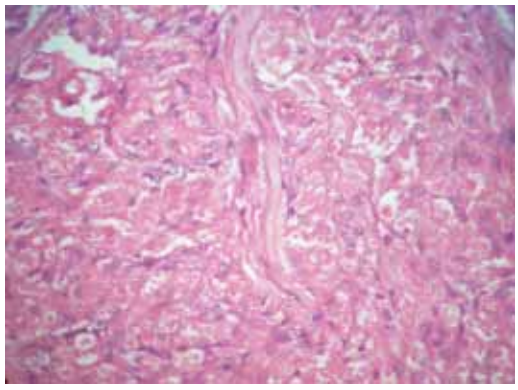

Fig. 3 Typical histopathological picture of the granular cell tumor, characterized by the presence of groups of cells with granular cytoplasm and round nuclei (H&E 40x).

At present Granular cell tumors are generally accepted as being of neural origin, either Schwann cell or neuroendocrine because of the positive testing for S-100 protein.[19,20,21] Granular cells are positive for S-100, neuron-specific enolase,[13,19] myelin basic protein,[19] and laminin[19] Staining is negative for neurofilament proteins and glial fibrillary acidic protein. Granules are PAS positive and diastase resistant.[19]

Granular cell tumours have been reported in patients from all age groups ranging from 11 months to 85 years.[9,23,21,22] However the tumor most frequently occurs in the fourth to sixth decades of life and is rare in children.[20,21,23] Females are twice as commonly affected as males.[9,19,20,23] Considering our case it is rare to occur in the second decade.

According to Rajendran etal[19]as many as 15% of patients have granular cell tumours of multiple anatomic sites. Boulos etal[23] reported multifocal tumour in 4-10% of cases.

Benign granular cell tumors are gene-rally seen as a solitary asymptomatic nodule less than 3 cms in size involving the subcutaneous or submucosal tissues. The mass is generally pink in color but occasionally GCTs show a yellowish surface coloration.[21,19,20] The nodular mass is hard in consistency and generally reveals an intact overlying epithelium[10]. Large lesions may sometimes show surface ulcerations, which may clinically give an impression of a malignant neoplasm.[21]

Histologically granular cell tumors exhibit large round or polygonal cells with small nuclei and abundant pale eosinophilic granular cyto-plasm. The nucleus is eccentrically placed.[12,19,20,2122,23] The cells are usually arranged in unencapsulated sheets, but may also be found in cords and nests. The cell borders are generally indistinct giving rise to a syncytial appearance. Sometimes the tumor appears to infiltrate the adjacent connective tissue. On occasions there appears to be a transition from normal adjacent skeletal muscle fibers to granular tumor cells, this finding has led to the proposition of muscle origin for this tumor [19,20,21] Less frequently groups of granular cells may be seen enveloping small nerve bundles. Mitotic figures are rarely found.[21]

A significant finding is the presence of acanthosis or pseudoepithelio-matous hyperplasia of the overlying epithelium. In lesions involving the tongue the pseudoepithelio-matous hyperplasia may be so pronounced that it has been misinterpreted as squamous cell carcinoma.[10, 12,19,20,21]

In eight cases reported by Eguia A etal [22] pseudoepi-thliomatous hyperplasia was observed in 87.5% of cases. In other studies,[19,20,21,23] it was found only in 50% of the cases. Eguia A etal reported that this high prevalence in their cases could be related with other clinical parameters as the long time of evolution of the lesions or the more frequent lingual localization.[23]

In this case also there was severe pseudoepi-thliomatous hyperplasia. (Fig-1, 2)

Ultrastructural studies have described the cytoplasmic granules as autophagic vacuoles containing cellular debris including mitochondria, fragmented endoplasmic reticulum as well as myelin. Background stroma is minimal.[19]

Majority of the tumors follow a benign clinical course; therefore the treatment of choice is a conservative surgical excision of the lesion.[6,15] However as the GCT has a poorly defined margin it is suggested that the tumor should be excised along with portions of adjacent tissue.

Recurrences are uncommon and frequently are the result of an incomplete resection of the original lesion[16] Nevertheless, locally aggressive and manifestly malignant variants of this tumor have been described in the literature.[16-18] According to most authors 2% of the

GCTs turn malignant.[11,12,13,19] While Boulos etal[23] have reported that 10% show malignant behaviour. They reported a case of Granular cell tumour of palate with perineural spread which is very rare. The more common sites of metastasis are regional lymph nodes, bones, peripheral nerves, peritoneal cavity and lung.[23]

Apart from the histopathological picture, the clinical size of the tumor, pain, rapidity of growth, invasion of underlying and adjacent structures and the presence of regional and distant metastasis will aid in differentiating a benign GCT from the malignant counterpart.[21] 7 to 8% of recurrence after local excision has been reported.[19,23] Hence prognosis is good.

Conclusion

In spite of the controversial origin of this tumor, when the extirpation is carried out correctly with enough safety margins the prognosis is positive, due to its slow growth, uncommon aggressiveness and its low tendency to recurrence. It is rare for granular cell tumour to occur on the palate and in the second decade of life. Though rare malignant tumours have been reported in the literature. So swellings on the palate should be considered with suspicion. Histopathologic examination should be carried out at an early stage itself.

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Quiz

*Jerly Abraham ** Haris P S ** Nileena R Kumar ** Sharafuddeen K P *** Anita Balan

1) A 49 years old female patient reported to the dental clinic with a complaint of tingling of the corners of the mouth since 1 month. She also complains of occasional leg cramps. She is most likely to have:

a) Hypokalemia b) Hyperkalemia
c) Hypocalcemia d) Hyponatremia

2) A 55 years old lady reported to the dental clinic complaining of difficulty in chewing and swallowing dry foods. This is termed the,

a) Lipstick sign b) Tinnell sign
c) Cracker sign d) Tongue blade sign

3) Mona Lisa face is seen in:

a) Parkinsonism
b) Scleroderma
c) Myotonic dystrophy
d) Chronic depression

4) Inverted 'J' bone loss noted in radiographs is seen in:

a) Mandibular incisors
b) Maxillary premolars
c) Maxillary incisors
d) Mandibular molars

5) A 61 year old edentulous patient complains of tightening of maxillary complete denture since the last two months. Radiographic examination showed a "cotton wool appearance" of bone. The condition is likely to be:

a) Torus
b) Paget's disease
c) Acromegaly
d) Ameloblastoma

6) A patient reported to the dental clinic with a swelling of one side of face 3 days after undergoing endodontic treatment for a maxillary premolar of the same side. Crepitation was present on palpation. The condition is most likely to be:

a) Infection
b) Hematoma following LA
c) Subcutaneous emphysema
d) Cellulitis

ANSWERS 1) c, 2) c, 3) b, 4) b, 5) b, 6) c, 7) c, 8) a, 9) d, 10) b

7) Which of the following sign is seen in psoriasis:

a) Battle sign
b) Darier's sign
c) Auspitz's sign
d) Gunn's sign

8) "Ebbing-tide appearance" of leukoplakia is seen on the:

a) Floor of mouth
b) Buccal mucosa
c) Tongue
d) Palate

9) Carpet tack sign is seen in all except:

a) Pemphigus foliaceous
b) Seborrheic dermatitis
c) Discoid lupus erythematosus
d) Lichen planus

10) A patient has difficulty in closing one eye with rolling up of the eyeball on attempted closure. This is called:

a) Chovstek's sign
b) Bell's sign
c) Pemberton's sign
d) Verrill's sign

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Secretary's Report and Association News

My dear fellow Members,

It is indeed a pleasure working with the dedicated, untiring, perfectionist Dr.Santhosh Sreedhar.The CDH and CDE wing is safe in the hands of two dynamic, enthusiastic and humanitarian leaders Dr.Abdul Latheef and Dr.Deebu Jacob Mathew.This year the magic of these visionaries are evident by the activities so far. Hats off to IDA Kunnamkulam for making the World Haemophilia day so fruitful and memorable. It was indeed a modest step to wipe away the tears from the eyes of those unblessed.

My special word of appreciation to Dr.K.Nandakumar for coming out with a supplementary issue which I am sure will give enough space for the academicians, researchers and students to publish their works.

Many more novel programmes are there in the pipeline. Iam sure with the committed support and indomitable resolve of each and every one of you, we can make this IDA year high-flying.

Dr.Shibu Rajagopal
Hon.Secretary
IDA Kerala State.

CDE Report

Dr. Deebu. J. Mathew
CDE Convenor

At the outset allow me to wish each and everyone of you a very very Happy "Vishu" and may you be blessed with all good fortune.The Cde wing of IDA kerala is warming up to the task and this is amply demonstrated by the scientific sessions being held in all nooks of the state. It is the priority of the organization to provide its members with opportunities to refresh their skills and knowledge and I hope that we are able to fulfill that aspect.

IDA Kerala state has a range of events coming up on its calendar and all these are regularly updated on the website. Please do check the website and make your plans accordingly.

Report of the First State level CDE program

The 1st State CDE program - "Rotary Endodontics Simplified".was conducted by Dr.Sunil Rao and Dr.Sunil Mangalam and held on the 20th of February 2011.The event was conducted by the IDA Quilon branch. At a well organized venue-The Hotel Vaidya the President of IDA Kerala Dr Santhosh Sreedhar inaugurated the CDE programs for the year.

The Hon; Secretary Dr Shibu Rajagopal spoke as did the State CDE chaiman Dr Deebu J Mathew. The event was attended by 83 delegates from various branches and also by student members. The hands-on sessions turned out to be very beneficial to the participants gauging from the feedback received after the event.

Report of the Second State level CDE program

The second CDE program was a live Surgical workshop held at the Pariyaram Dental College,Pariyaram on the 3rd of April 2011 and was hosted by the North Malabar branch of IDA Kerala State.

The inaugural ceremony began with a welcome address by Dr Saji,principal of the college.The President of IDA Kerala Dr Santhosh Sreedhar inaugurated the CDE program. Dr Raveedranath,President –elect, IDA Kerala State, Hon; Secretary Dr Shibu Rajagopal,Dr OV Sanal Vice president. Dr Arun Narayanan,President North Malabar and CDE chaiman Dr Deebu J Mathew spoke.

The first lecture session was conducted by Dr George Paul, Director, Sharon cancer center on the topic "Minor oral surgery-Major issues".Dr Sony Jacob elaborated on the topic-"Cysts,Apicoectomy and Dento alveolar trauma". The third session was held by Dr Soumithran, HOD,Govt: Dental College,Calicut on the "Prevention and management of complications in minor oral surgical procedures".

The post lunch sessions comprised of hands on participation for registered delegates and live telecast of the surgical procedures to the delegates in the lecture hall along with interactive sessions with the operating surgeons. A total of 183 members belonging to 6 branches participated in the event

CDH Report

Dr Abdul Latheef K H
CDH Chairman

March 6- DENTIST'S DAY CELEBRATION

During March and April 2011 we had two major state level programs and many excellent branch level CDH activities

April-17 OBSERVATION OF WORLD HEMOPHILIA DAY

We had the state level program at New Nalanda Auditorium, Kozhikode, hosted by IDA Malabar branch. The National President of IDA Dr. Georg Thomas and the mayor of Calicut smt. M.K Premajam were the chief Guests. The basic life support Training "save yourself"; Dental students program and the special Entertainment Programs added colours to the Dentist's Day celebrations. The charter presidents and secretaries of all branch of IDA Kerala state were honoured in the function. Promising Dentists award were distributed. By the installation of the women's wing, IDA Kerala state added another chapter to its history

IDA Kerala state conducted a workshop on Hemophilia as a combined CDH –CDE Project on this day at I.M.A Hall Kunnamkulam hosted by IDA Kunnamkulam Branch. The Social commitment of our organisation was well marked with this beautifully organized program. All the Medias projected the step by IDA to build up a healthy society. The literary legend of Kerala Dr. Sukumar Azhikod inaugurated the function and Dr. Vargeese Mani, the renowned oral and Maxillofacial Surgeon was the guest of honour.

Three different scientific sessions were conducted. The panel discussion on "social problems of hemophiliacs" was well attended by more than 100 hemophilia patients and their family members. The interaction by the patients in various issues were heart throbbing. The active participation of Dr. Joshy Thomas (President Rotary club, Kunnamkulam), Mr. E. Regunandanan (Executive member, Hemophilia federation, India) and Miss Mini-muriangathery (Journalist, the Hindu newspaper) were well appreciated. The faculty members of the scientific session were: Dr. Varghese mani (principal Mar Basalleous Dental college, kothamangalam) Dr (sr) Merly (physician, st:Antony's hospital, paghuvil) Dr. Ashok varma (surgeon, unity hospital) Prof. N.N Gokul das (president, hemophiliac society kunamkulam) Dr. Paulosekutty. M.K (Ruby Dental clinic) Dr. Gregory. T.M (Royal hospital) Dr. Susanth. B(co-ordinator Hemophilia workshop)

The CDE Chairman Dr. Deebu Jacob Mathew and myself were the moderators' of these sessions. The meeting was presided over by Dr Santhosh Sreedhar, president IDA Kerala state. Dr. Shibu Rajagopal, Hon. state Secretary and Dr. Anil G vice president of IDA Kerala state delivered the felicitation address.The workshop unanimously suggested for combined efforts by IDA & Hemophilia society to find out solution for various issues these patients and their families are facing today.

MALANADU

Second CDE PROGRAM

The second CDE program of IDA Malanadu Branch was held on 28/04/11, 7:00 PM, at Hotel Kabani International, Muvattupuzha. Dr Eapen Cherian, faculty in Oral Pathology, Pushpagiri College of Dental Sciences, Thiruvalla, was the speaker of the day. He extensively lectured about the scope of Forensic Odontology. About 50 delegates attended the program. The program concluded with dinner by 10 PM.

DENTISTS DAY CELEBRATIONS 2011

The Dentists Day celebrations of IDA Malanadu branch were held on Saturday 5th March 2011. The morning session comprised of 'Free Denture Screening Camp', conducted at Taluk HQ Hospital, Muvattupuzha. The program was inaugurated by Sri U R Babu, municipal chairman, Muvattupuzha. More than 100 needy patients were examined and were allotted to different clinics. An oral cancer awareness calendar to be distributed among the tribal population of Idukki was also released during the same. In the evening, a family get together was organized at Muvattupuzha Club. During the function, dentists who completed 25 years of clinical practice were honored. Variety entertainments including musicals, skit, and fashion show by the members and their spouses and children made the occasion colorful.

COASTAL MALABAR

INSTALLATION CEREMONY AND NEW YEAR CELEBRATIONS

2nd January 2011, Sreeprabha Auditorium, Payyanur.

The First general body meeting, new year celebrations and installation of office bearers of IDA Coastal Malabar branch for the year 2011 was held at 7.15p.m. on 2nd January 2011 at sreeprabha auditorium, payyanur.

STUDENTS PROGRAMME: Our Student members from Pariyaram Dental College presented a variety of entertainment programmes including cinematic dance, classical dance, skit etc. The programme was highly appreciated by the audience.

FAMILY GETTOGETHER: About 20 families parcticipated in the new year celebrations. Dr.A.V.Sreekumar, Dr.Madhusoothanan. A.V, Dr. Anil Melath and Dr. Sapna Sreekumar entertained the audience with their melodious songs. Family members also participated in the entertainment programmes.

CDH ACTIVITIES: Dental check up camps:

8 th January 2011, GLPS, Mayicha,Cheruvathur. Held in association with the jubilee cebrations of cheruvathur gramapanchayath. 13 th January 2011, Govt.Higher secondary School, Valiyaparamba. Examined more than 600 students and adviced treatment and free tooth brush and toothpaste were distributed in the dental check up camp held at Govt. Higher Secondary School, Valiyaparamba.

1 ST EXECUTIVE COMMITTEE MEETING, 13 th January 2011

1st executive committee meeting of IDA Coastal Malabar branch was held on 13 th January 2011 at Hotel Vyshakh International, Payyanur.

2 ND EXECUTIVE COMMITTEE MEETING, 7 th April 2011

The second executive committee meeting of IDA Coastal Malabar branch was held on 7th April 2011 at 7.30 p.m. at Hotel Taste buds, Mayicha, Cheruvathur.

CDE PROGRAMMES: I CDE Programme 'Diagnostic Dilemmas in Periodontics' was conducted on 6th February 2011 at Hotel Vyshakh International,Payyanur.

II CDE Programme was held on Hotel Bekal International, Kanhangad on 27th March 2011 at 7.30p.m.

II STATE EXECUTIVE COMMITTEE MEETING, 23rd February 2011

IDA Coastal Malabar hosted II state executive committee meeting on 23rd February 2011 at Hotel KK Residency, Payyanur.

DENTIST DAY CELEBRATIONS,CALICUT, 3rd March 2011

The Dentist day was celebrated by the IDA Kerala state in a grand manner at Calicut.

HOPE AGM, Calicut 3rd March 2011: Our HOPE Representative Dr.P. Santhoshkumar and 10 other HOPE members attended the HOPE AGM held at Calicut on 3rd March 2011.

THALASSERY

Installation ceremony:- of office beares of Thalassery branch for the year 2010-2011 was held on 16-01-2011 at IMA house, Thalassery. Dr. M.Ravindranath, President elect was the chief guest of the day. Dr.Anil.G, Dr.O.V.Sanal & Dr. M.C. Mohan were the guests of honour. A total number of 48 branches members with their family members attended the event. The official ceremony was followed by dinner & entertainment.

1st executive meeting :- held on 04-02-2011 decided to conduct 1st CDE programme & family get together. 20 members are attended.

CDE programme:- held on 17-02-2011 at IMA house Thalassery, faculty was Dr.Ajoy Vijayan. The topics were medical emergencies in dental practice and antibiotics & Analgesics. 90 members attended the CDE programme out of which 40 of them were student members. Certificate were also given.

Family general body meeting:- held on 13-03-2011 at Deract Lands there were numerous games for Ladies, Kids & Gents. It was hosted by a professional host. The entertainment programme was by Asianet Valkanady fames. Altogether 28 members along with family members attended the programme which was followed by lunch & fellowship.

2ndexcecutive meeting:- held on 22-03-2011 decided to conduct CDH programme & family Tour. 22 members are attended.

CDH programme:- 1) Oral checkup & awareness programme was held on 20-03-2011 at Vayalalam U.P. School. 200 Students were examined. Dr.Ali K.P.M, Dr.Vijesh Adiyeri, Dr.V.P Sreejith & Dr Sheeba Ashwin attended the camp.

2) Oral check up & awareness programme was held on 27-03-2011 at Kariyad Theru L.P. School. 350 Students were examined. Dr. Jithesh, Dr. Purushothaman, Dr. Babitha & Dr. Deepson attened the camp.

3) A CDH programme was held on 3.4.2011 at Velliyayi East L.P School, Panoor. 250 students were examined.Dr. Mallika, Dr. Sumal, Dr.Purushothaman, Dr, Jithesh, Dr. Yakoob & Dr. Babitha attended the camp.

ATTINGAL

INSTALLATION CEREMONY: Installation of Dr Alex Philip and his team of office bearers for the year 2011 was held on 9th January 2011 at Raj Residency Kalluvathukkal. Hon-State Secretary Dr. Shibu Rajagopal was the chief guest of the function. IDA State Past President Dr. Oommen George was the Guest of Honor. Honoring of all the Past President's and Secretaries of the branch was conducted. 10th year Celebration of the branch was inaugurated by the Hon-State Secretary Dr.Shibu Rajagopal. Outgoing President Dr. Premjith installed the incoming President Dr. Alex Philip. After this all the other office bearers were installed. After the official function a Gala Banquet was arranged for all the members and their family. Members from Thiruvananthapuram, Kottarakkara and Kollam branches attended the function.

I BRANCH EXECUTIVE COMMITTEE MEETING: The first branch executive committee meeting was held at the ATTINGAL CLUB on 19th January 2011, 7pm. Projects and programmes for the year 2011 were discussed in detail. All the executive committee members were present in the meeting.

PRATYASHA- FREE DENTURE DISTRIBUTION AND ORAL CANCER DETECTION CAMP: On February 4th 'Pratyasha' the free denture project of IDA was conducted. 50 Full Dentures were distributed. The programme was conducted in association with Sree Sankara Dental College, Varkala. Prinicipal Dr.Shobha Kuriakose inaugurated the free Denture distribution. Oral cancer detection camp was inaugurated by ex-vice chancellor of Kannur University Dr. Chandra Mohan. Around 200 patients attended the camp. President, Secretary and ex. committee members attended the programme.

CDE PROGRAMME: The first CDE Programme of IDA Attingal Branch 'Aakriti' was conducted on 13th February Sunday at IMA Headquarters, Anayara, Thiruvananthapuram, 9am. The second CDE programme was on prosthodontics by Dr.Eldo Koshy on march27 at Technopark club.More than 150 participants were

present.

II- STATE EXECUTIVE COMMITTEE MEETING: On February 27th II state executive committee meeting was held at Payyannur. Hon. Secretary Dr. Arun Roy.S, Dr. Abhilash.G.S, Dr. Biju A.Nair and Dr.Premjith attended the meeting.

DENTIST DAY/HOPE -EOGM: The most promising member of the branch award was presented to past president Dr. Ashok Gopan. Charter President and charter Secretary of the branch were honored. EOGM of Hope was held on the same day. Hope representative Dr.Deepak Das attended the programme. Installation of the Women Dental Council(Kerala Chapter) was done along with dentist day celebration.

II BRANCH EXECUTIVE COMMITTEE: II Branch Executive committee meting was held on 08/03/11 at Hotel Ganga Attingal. President Dr. Alex Philip presided the function. Hon. Secretary Dr.ArunRoy.S presented the report. 21 members attended the meeting. Meeting decided to conduct the second CDE programme on 27th march and First General Body meeting on April 10th Sunday. Conveners of CDE, CDH and Editor Journal presented their reports.

KOLLAM

Executive committee meeting: Second executive committee meeting was conducted on 19/2/11 at Lions hall,Kollam. 15 executive commitee members attended the meeting.

General body meeting: March 19 second general body meeting was conducted at Lions hall,Kollam. 40 members attended the meeting.

CDE Programes: On feb 20 First state level CDE programe on Rotary endodontics conducted by Quilon branch at hotel sudersan, Kollam. Lecture plus hands on course. It was a big success.

Intra branch CDE programme on 19/3/11 along with GB meeting, Faculty was Dr Kurian Varghese.It was attended by 43 members.

CDH ACTIVITY: On dentist day, conducted a dental camp at old age home, Thangssery,Kollam 46 patients were treated.

Dentist day state Quize programe Quilon branch comes in second place.

MEMBERSHIP: This year we have 22 new membes till now. 106 Anual members and 3 life members.

THIRUVALLA

I on behalf of I.D.A,Thiruvalla branch feel proud to share with you our activities in the year 2011-2012 so far. We held our installation ceremony on 9.01.11 at Thiruvalla. Shri Anto Antony, Hon M.P inaugurated the function in the presence of Dr.K.N.Prathap kumar,IPP IDA Kerala state. Rev: Philip Payyampally (CEO Pushpagiri Medicity),Smt:Linda Thomas (Hon Chairperson, Thiruvalla) were the geust of honours. More than hundred delegates including students attented the programme. It was followed by entertainment programme by members & dinner. Photos attached.

The branch observed World Cancer Day (4.02.11) at Christ central school,Thiruvalla. Sri George Varghese IG of Police inaugrated the function in the presence of President Dr:Thomas George. Dr Eapen Cherian,reader, Dept of Oral Patholgy delivered the message. He emphasised on the hazards related to smoking & Pan Chewing.

I.D.A Thiruvalla in association with Lions Club of ranni participated in a medical camp in Ranni on 16.01.11. About 200 patients were screened.

Inauguration of the C.D.E activities & 1st C.D.E programme was

held on 18.02.11 at Pushpagiri Dental College. Inauguration was done by Dr:Samuel K.Ninan (IPP,IDA Kerala) in the presence of Dr:Thomas George,(Pres: IDA,Thiruvalla). About 30 delegates apart from 60 students attended the programme. Dr:Alex Mathew gave an intresting speech on the new avenues regarding Lasers in Dentistry.

As a branch we are planning to observe Dentist day, 2ndCDE, Family tour in the coming months. Till then adious. Jai I.D.A.

KASARAGOD

CDE Programme: Conducted a clinical case presentation meeting on 16nth feb, 2011 at Lion's hall, Kasaragod. Members presented interesting case report of their clinical practice. Meeting was followed by dinner.

Family Get Together: There was a family get together meeting on 5th April 2011 at IMA hall, Kasaragod. There was a talk on stock exchange and money management by Mr. Joshy,Territory manager, Geogit. Meeting was followed by dinner.

WAYANAD

The installation of the new office bearers for the year 2011 was held at Abiramy resorts Mananthavady on 12/12/2010.

The office bearers are: President: Dr Ranjith CK; President elect: Dr Biswas PP; VicePresident: Dr Bennichen, Dr Thomas Mathew; Hon: Secretary: Dr Frens Jose; Jt: Secretary: Dr Rajesh T Jose; Asst: Secretary: Dr Sanoj P B; Treasurer: Dr George Abraham; CDE Convenor: Dr Sajith PC; CDH Covenor: Dr Damodaran; IDA Hope Rep: Dr Babu Vijayasanker; IDA Image Rep: Dr Elias KP; Hon: Editor: Dr Adrash s Indira; Executive members: Dr Elsy Bijoy, Dr Noushad Palliyal, Dr Rejith M; Rep To the state exe : Dr Ranjith CK, Dr Poji Menachery, Dr Bijoy Oommen

Membership: The membership strength increased from 42 to 45

Executive meetings: Three executive meetings were held on21/12/2010, 28/1/2011 and on 25/2/2011. All the meetings were well attended.

Family Tour: Two day family tour was conducted to Iruppu falls, Coorge, Karnataka.

Cricket Match: Was held between Malabar branch & Wayanad Br 0n 27th of march at Kalpetta. But unfortunately the match had to be abandoned due to heavy rain after few over's.

CDE: Four CDE classes were held. The topics were : A) Minor surgeries in Pedodontics; B) New trends in Fixed partial denture; C) Botox in dentistry; D) Implants

CDH activities: 4 Dental treatment camps were held in various parts of Wayanad district

KODUNGALLUR

Installation of the new office bearers of 2010-2011 of IDA Kodungallur was held on 14th November 2010 at Hotel Chandvi. The new team under the president Dr Sunil K B was installed by the President IDA Kerala State- Dr Samuel K Ninan

The 1st executive meeting was held on 9th December 2010 at IMA hall, Kodungallur. The president Dr Sunil K B outlined the projects and programs of the new IDA year.

The 1st General Body meeting of the branch was held on 13th January 2011 at IMA Hall. the 1st CDE program of the year was taken by Dr Ranjith Kalliath- Associate professor OMFS Royal Dental College, Thrissur. The speaker stressed on the importance of dental clinics to be equipped and prepared to deal with emergencies rather than wait for emergencies to occur.

World pain and palliative care day was celebrated as state level program on 15th January 2011 at IMA Hall. the program was presided by President IDA Kerala State Dr Santhosh Sreedhar. President Dr Sunil K B welcomed the gathering. The chief guest Hon M P Sri K P Dhanapalan handed over the Ambulance van donated by Members of IDA Kodungallur to Pain & Palliative care centre of Kodungallur. Smt Suma Sivan-Chairman, Kodungallur Municipality, Dr Abdul Lathif – CDH Chairman Kerala State, Dr O V Sanal 1st Vice president Kerala State, Dr Tennison Chacko- Asha Kiran Coordinator and other leaders felicitated and Dr Mahesh Narayanan, Secretary IDA Kodungallur proposed vote of thanks.

The 2nd executive meeting was held on 25th January 2011 at IMA Hall. a committee was formed to conduct the State Students conference. Dr George Francis was elected as chairman, Dr Joseph Lijo as organizing Secretary and Dr Justin Mathew as Teasurer.

A special executive meeting was held on 3rd February 2011 at IMA Hall to discuss about the student conference. Various committees and subcommittees were formed for smooth

conduction of the student conference.

The 2nd GB was held on 10th February 2011 at IMA Hall. a CDE program was conducted on complete denture impressions. The faculty was Dr Thomas Paul, Prof & HOD, Prosthodontics, Royal Dental College, Trichur. He highlighted the need to understand the esthetic needs of the complete denture patients with video demonstration.

The 3rd executive meeting was held on 24th February. Various matters including student conference and hosting of 45th KSDC was discussed. It was also decided to honour our senior member on dentist day celebration.

The 3rd GB along with Dentist Day Celebration was held on 17th March 2011 at Rotary Hall. Dr Anil Kumar, Past President- IDA Kodungallur was honoured with a Plaque and Citation on this occasion. the 3rd CDE Program was also held on this day. The topic of Endodontics- current trends was dealt by Dr John Mathias- Sr Lecturer Royal Dental College, thrissur. A discussion on do's and dont's in RCT was the highlight of the program.

MALABAR

CDE activities.

Title:dental bleaching-the truth behind

Faculty: Dr. Prashant Dhanapal, Dept.of Endodontics,KMCT Dental College; date:20.3.2011; venue: IDA hall, Ashokapuram

CDH activities

Oral check up camps -2nos

Date 13.3.2011 place: Govt. Juvenile home (boys), Govt Juvenile Home (girls)

Awareness class on oral hygiene

Place-nalanda auditorium,calicut; date-6.3.2011

Basic life support training programme

Inaugaration done by worshipful mayor of calicut prof.premajam; date-6.3.2011; place-nalanda auditorium,calicut

Association with-dept.of emergency medicine, mims, calicut

Healing touch

Programme/camp on esthetic dentistry

Date-13.3.2011; place-palliative centre kizhariyoor,calicut

Association with-rotary club of calicut,alumni association of gdc calicut.

Family get-together&womens day celebrations

Activity-orientation class on effective parenting for adolascents,cake cutting to celebrate womens day,games

Date-8.3.2011

Place-ida hall ashokapuram

No.of.participants-30(members&family)

Association with-thanal(an ima initiative)

Other activities

Dentists' day celebrations of IDA kerala state,hosted by IDA malabar; date-6.3.2011; place-nalanda auditorium,calicut

TRIVANDRUM

January16th 2011: Installation ceremony and family get together of IDA Trivandrum branch was held in the IMA Hall, Trivandrum on the 16th January 2011. The program started at about 7 pm with a prayer by Dr Shantala Keni. Dr Sangeeth K Cherian the out going president welcomed the gathering and spoke on the activities of the IDA Trivandrum branch in the previous year. Dr Sangeeth then collared the in coming president Dr Lin Kovoor, who subsequently installed his team of office bearers for the year 2011-2012. The chief guest of the day Dr Santhosh Sreedhar [President, IDA Kerala State] inaugurated the activities of the branch for the year 2011 by lighting the lamp. Dr KG Nair [Former IDA National president released The Probe, the news letter of IDA Trivandrum branch [January 2011, volume 9 issue 1] and presented copies of the same to the chiefguest and Mr G. Vijayaraghavan, former CEO technopark. [guest of honour]. Mr Vijayaraghavan gave away prizes to the winners of various competitions held by the branch. Dr Suresh Kumar G, the out going secretary shared his experiences during his tenure. Dr Gins Paul, the new secretary of IDA Trivandrum offered the vote of thanks.

CDE PROGRAMS: SYMBIOSIS 08 March 2011: The first clinical club presentation for the year 2011was held in the month of March at the IDA hall Innu apartments, Trivandrum. Dr Mohan Kumar Prof& HOD department of Prosthodontics Sree Shankara Dental college Kollam, was the faculty for the program Dr Mohan Kumar, on popular demand, spoke on Demystifying TMD -Part II, with special emphasis on the treatment planning, selection and fabrication of appliances used for the treatment of TMD

06 February 2011 : The first continuing dental education program for the year 2011 was held in the IDA hall, the Innu apartments, Kuravankonam. Dr [Capt] Vivek V professor & Head, Department of Oral medicine & radiology, PMS College of dental science and research, was the faculty. The one day program titled ' Interpreting Shades of Grey' was on basic intraoral periapical radiography.

03 April 2011: Dental Pain– A Gordian Knot Untied " was the topic in the of the 2nd CDE program conducted by IDA Trivandrum branch. Dr Mathew Jose, Prof & Head, and Dr Jomy Varghese, Sr lecturer, dept of oral surgery, Sree Mookambika institute of dental science were the faculty. President IDA Trivandrum Branch

felicitated the faculty and presented them with certificates of appreciation

CDH Programs: 1st Dental camp at Valiyaudheshwaram Government school organized by IDATrivandrum branch under the auspices of Rotary club of Trivandrum West. Dr KG Nair, Dr Kamala Lakshmy, Dr Prasanth S, Dr Sumesh Chandran, Dr Lin Kovoor [President IDA Trivandrum] and Dr Gins Paul [secretary IDA Trivandrum] participated in the camp. 250 students were screened and dental health kits distributed for all.

2nd Dental Camp was conducted at Police quarters Palayam as a part of there vacation camp for the family members of the police quarters. The camp was attended by Dr Prasanth CDH representative,Dr M P Vinoth, Dr Joseph Alencheril, Dr kamalalekshmy, Dr Sumesh attended the programme.80 children were screened and dental health kit distributed for all.

CENTRAL KERALA - KOTTAYAM

December

AGM - The AGM of CKK was held on th Dec 2010 at Hotel Orchid Residency. The Office bearers of 2010-11 was decided unanimously and all the reports were passed. The new team was handed charge of the branch office

January

Installation Night - Family Meeting in association with the Installation of the new team of Office bearers was held on 23rd Jan 2011 at Hotel Windsor Castle in the presence of Kerala State President Dr.Santhosh Sreedhar and Secretary Dr.Shibu Rajagopal. 247 members attended the colorful meeting. All the Past Presidents and Secretaries of the Branch were honoured in that program. The First Issue of the In-house Journal-SMILE was released by Dr.Santhosh Sreedhar.

CDH - An Oral Awareness Class was taken by Dr.Alex Varghese and Dr.Anil Kurian at the Changanacherry Club on 30/1/11.The Class was well attended by the Public and it was greatly appreciated.

CDE- The Inuagural CDE of this year was conducted on 20/2/11 at Hotel Orchid Residency. Topic was "Minor Oral Surgery-Tips on how to avoid Complications".Faculty-Dr.George Varghese k(Principal I/C Govt.dental College,Kottayam).

The CDE was Inaugurated by Dr.Mathew Joseph Vayallil(KDC President). 60 participants attended the CDE.

March.

Dentist Day Celebration- Dentist Day was Celebrated by IDA CKK aboard a Houseboat –The Jal Saamrat on March 6th.148 members attended this One-day family gettogether which included Games and Painting Competition for kids, A Cookery Class for Ladies, Music and Fun.

NORTH MALABAR

INSTALLATION PROGRAMME

Date:9.1.2011

Venue:Hotel Malabar residency,Kannur

The installation ceremony of office bearers of IDA North Malabar Branch for the year 2010-11 was held on January 9th 2011 at Hotel Malabar Residency. The chief guest for the day was Mr A.P Abdullah Kutty,MLA Kannur. The Guests of honour for the day were Dr Santosh Sreedhar,President IDA kerala state& Dr O.V Sanal, Vice President IDA Kerala State.During the day Dr Arun Narayanan, The incoming President, IDA North Malabar branch and his team of office bearers were sworn in.The ceremony was followed by variety entertainment and dinner.

CDE ACTIVITIES

Topic: Impaction-Refinement of techniques

Faculty:Dr Ajoy Vijayan MDS(Kannur dental college)

Venue:Mascot beach resorts,Kannur

Date:1 february,2011

Topic : Post Insertion problems in complete dentures

Faculty:Dr Anoop Azad Mohammed MDS

Date; 1march.2011 ; Venue:Malabar Residency,Kannur

Check up camp- dentists day celebration

Date:6.3.11; Place: Marian Centre school for Mentally Retarded,

Bekkalam, Kannur

DrRanjithKrishnan,Dr Anil Kumar P K,Dr Nishad Participated in the check up camp in which 30 inmates were examined

Check up camp- dentists day celebration

Date:6.3.11; Place:Amala Bhavan,Kannur

Dr Sumita Vishwanath and Dr Lolita participated In the check up camp held at Amala bhavan.

Dental awareness class- dentists day celebration

Date:6.3.11, Place:Prateeksha Bhavan,Pallikkunnu, Kannur

Dr Anil Kumar PK conducted a dental awareness class for parents and inmates of prateeksha bhavan.

Check up camp

Date:24.3.2011 Place:Gem International school,Vellikkeel, Kannur

Dr Ajay Nair,Dr Anil Kumar P K,Dr Ranjithkrishnan Participated in the check up camp

Pain and palliative day

IDA North Malabar branch observed pain and palliative day in association with Malabar cancer society,kannur and donated an amount of Rs 2000 to the cancer society.

MALAPPURAM

As New Year rolled out, the **new team of office bearers** under the President-ship of Dr.Biju.J.Nair was elected in a very smoothly held A.G.M at Malappuram on 5/12/10. Installation of the new team was held at I.M.A Hall, Nilambur on 12/12/10, Dr Raveendranath President-elect, IDA Kerala State was the Chief guest & Installing officer.

Various continuing educational & community dental health programs were launched during the installation ceremony. CDH Project Suraksha, aimed at immunizing dental assistant for Hepatitis. 'Give kids a smile' the CDE project & Poster for Ladies wing project Mutthu Chippi planned at improving oral hygiene in pregnant women for the health of their expecting child were released.

It's indeed been a happy start for the President, Dr.Biju as well The First family programme of the year Kudumbasameetham, 1ST Inter-Branch CDE on PEDODONTIC UPDATE by Dr.V.P.Kannan & World community palliative care day on 23/1/11 held at Royal choice, Perinthalmanna was resounding success!

IDA Malappuram bagged 6 national awards at National Conference held at Jaipur for Best local branch (IDA Thane branch award), Best local branch scientific activites (Dr.Keki Mistry award), Dr.Deebu.J.Mathew,Best local branch president (Dr.Krishna Nayak trophy), Dr.Rajesh Raveendranathan,Best local branch secretary (Dr.I.R.Goela Award), Runner's up in student activity (Dr. Ramakanth Venson award) & Appreciation award for Best

reporting. The sweetness of these awards are our members, without your support & encouragement we could not have achieved this fete. Kudus & congratulations to team 2009-2010 for this distinction!

3rd CDE on A CONCISE AND UP TO DATE PRESENTATION OF MODERN DENTAL RADIOLOGY by Dr.Sharafudheen.K.P (Calicut) was held on 17/4/11 at Grace Residency, Malappuram from 2pm to 6.30pm.16 members attended the CDE.

Observation of World Hemophilia Day was held along with 3rd CDE, Dr.Sharafudheen briefly discussed about DENTAL MANAGEMENT OF HEMOPHILIA PATIENTS.

Our Forth coming event: 1st Zonal CDE on Failures in FPD & it's management, ceramic laminates & difficult lower complete edentulous condition & it's management by Dr.Munirathanam Naidu (Chennai) at Swagath Inn,Pattambi Road, Valanchery on 1/5/11.

EXECUTIVE COMMITTEE MEETINGS: 1ST exe. Meeting held at Ernad Inn, malappuram on 22-11-2010 7.30pm -10pm; **2ND exe.** Meeting held at royal choice, Perinthalmanna on 23-1-11 2pm-3pm; **3rd exe.** Meeting held at Ernad Inn, malappuram on 15-02-2010 7.30pm -10pm; **4th exe.** Meeting held at Chengara Heritage, Perinthalmanna on 12-3-11 8pm-10.pm,

KUNNAMKULAM

Annual General Body Meeting-2010: Date : 13-11-2010; Venue: Hotel LIVA TOWER Kunnamkulam.

Installation Ceremony: Date : 19-12-2010; Place : Sopanam Heritage, Guruvayoor.

EXECUTIVE MEETINGS:- EC Meeting No- 1 Date : 22-12-2010; Place – Hotel Sopanam Heritage, Guruvayoor. **EC Meeting No – 2** Date : 5-2-2011; Place : Hotel Sopanam Heritage, Guruvayoor.

EC Meeting No – 3 Date : 1-4-2011; Place : KR Grand Residency, Kunnamkulam.

CDE PROGRAMMES:- CDE –Intra Branch Title : Photography – "Through the lens" Faculty : Dr.Saju N.S.MDS Date : 20-2-2011; Venue: Hotel Sopanam Heritage.

CDE –Inter Branch Title : Modern Endodontics. Faculty : Dr.Vinod Kumar MDS Date : 27-3-2011 Venue: Hotel Sopanam Heritage.

CDH Activities:- Oral Check up and awareness programme.

Date : 6-3-2011 Place : Little Flower Orphanage- paluvai

FAMILY GET- TOGETHER : Date : 23-1-2010; Place – Jumaira Beach Resorts, Chavakkad.

PATHANAMTHITTA

Installation Ceremony was held at Hotel Ranny Gate, Ranny at 7 pm. Dr. Alias Thomas IDA National Vice President was the chief guest and Dr. Anil G, the Vice President IDA Kerala State was the guest of honour. The president Dr. Suku Koshy installed Dr. Eugene Varghese Joseph as the new president and he installed the new office bearers.

Dr. Alias Thomas inaugurated the activities for the year 2011. Dr. Anil G released the annual edition of the branch Journal - Xtract. Dr. Shaji K. Joseph (President IDA Kottayam branch) and Dr. Pradeep Kumar PJ (Member, Kerala Dental Council) felicitated. The branch members performed cultural programmes after the installation ceremony.

30-01-2011 President Secretary Seminar at Payyannur was attended by the president and secretary

Report for the month of February 2011

09-02-2011 Ist Branch executive committee meeting was held at Govt. Guest House, Pathanamthitta

18-02-2011 Teachers training programme was conducted at IIIT, Pathanamthitta at 1.30 pm. Dr. Gigu Zakariah Philip took the dental health awareness class. Dr. Rajesh V, Dr. Suku Koshy & Dr. Eugene Varghese participated.

27-02-2011 State Executive Committee meeting at Payyannur attended by Dr. Thomas Varghese, Dr. Eugene, Dr. Rajesh V., Dr. Johnykutty Jacob and Dr. Gigu Zakariah Philip

Report for the month of March 2011

06-03-2011 Dentist Day Celebration & EOGM of HOPE at Kozhikode attended by Dr. Eugene, Dr. Sujith P.R. & Dr. Rincy Eugene. Dr. Sujith P.R was honoured on the occassion as the most promsing member of the branch.

06-03-2011 Branch Level Dentist Day Celebration: As part of the programme a free dental treatment camp was held at Aakashaparavakal, Ranny - a home for the mentally challenged. Dr. Jacob Korah, Dr. Gigu Zakariah Philip, Dr. Biju G. Nair, Dr. Rajesh V., Dr. Suku Koshy & Dr. Binu Chacko have participated.

11-03-2011 Dental Health Awareness Class was conducted at CMS LP School, Mallassery. Dr. Rincy Eugene & Dr. Rajesh V. took the classes

12-03-2011 A branch news letter containing the activity reports for the months of January, February & March and the forthcoming events was published and circulated among the members.

15-03-2011 Dental Health Awareness Class was conducted at National UP School, Vazhamuttom. Dr. Eugene Varghese & Dr. Rajesh V. took the classes

18-03-2011 Dental Health Awareness Class was conducted at SLV LP School, Malayalapuzha. Dr. Rajesh V. took the class

19-03-2011 Scientific Club Activity. An interactive class, discussion and live demo on the topic of Rotary Endodontics & Endodontic Emergencies - an overview, moderated by Dr. Geetha Devi MDS was held at Govt. Guest House, Pathanamthitta on Saturday at 7.30 pm.

19-03-2011 IInd Branch executive committee meeting was held at Govt. Guest House, Pathanamthitta