CASE REPORT OF A SUSPECTED CASE OF TREACHER COLLIN'S SYNDROME

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ABSTRACT
Treacher Collin Syndrome is a rare dominant congenital hereditary disorder. The syndrome is characterized by craniofacial deformities affecting about more than 1 in 50,000 births. Rehabilitation these patients involves a multidisciplinary approach with the prosthodontists rehabilitating various deformities involving the clinical features. This case report describes the rehabilitation of a suspected case of Treacher Collin syndrome with hollow dentures.

Key words: Treacher Collin Syndrome, hollow denture, prosthodontic rehabilitation.

Introduction
Treacher collin’s or mandibular dysostosis is a rare dominant congenital hereditary disorder. The syndrome is characterized by craniofacial deformities affecting about more than 1 in 50,000 births. The syndrome is characterized by underdeveloped cheek bones and mandible, abnormalities with the external ears, coloboma of the lower eyelids, absence of lower eyelids. More than 50% of the individuals are attributed to malformation of the ossicles and inner ear. Presence of abnormal small jaw leads to problems with swallowing or breathing. Patients may present with features of “Robin Sequence” which include severe micrognathia, glossoptosis (a tongue that is displaced farther back in the mouth than normal) with or without cleft palate. Other airway problems such as blockage or narrowing of the nasal passages (choanalatresiaorstenosis) or airway narrowing (pharyngeal hypoplasia) can compound the breathing issues.

CASE REPORT
A 62 yr old male patient reported to the College of K. M. Shah Dental College, Piparia with the chief complain of missing teeth in ability to chew. Patient revealed the loss of teeth due to periodontal problems. Upon thorough examination the patient revealed the presence of coloboma of eyes, loss of hair with the lower eyelid, under developed maxilla, macroglossia, leading to breathing problems. The patient also had difficulty in hearing and presented with the use of a hearing aid. Intraoral examination revealed presence of atrophic maxilla with high arched palate, macrognathic mandible, macroglossia, increased interarch space. The patient attributed of having previous denture which were heavy and also had difficulty in chewing. Radiographic examination revealed absence of submucosal clefts with large interarch space. After analyzing the condition it was decided to fabricate a hollow denture with upper and lower arch.
Primary and final impressions were made in conventional manner. At the time of jaw relation procedure care was taken to fabricate the occlusal rims in a manner to occlude each other, by giving an inward inclination to the lower rim and an outward inclination to the upper rim. Mounting of the occlusal rims was done in class III relationship. Teeth selection was done and was completed in a cross arch relation. Try inn was done for anterior and posterior teeth.

For making the maxillary and mandibular denture hollow the denture were flasked and dewaxed in conventional manner. After dewaxing a layer of 2mm of wax was adapted on the tissue surface of the cast. A second counter flask was placed and flashing and dewaxing was carried out again. Heat cure acrylic resin was packed to obtain a permanent denture base after curing. A small amount of putty was adapted on the permanent denture base. Two cuts were place on the putty in
the anterior region for easy removal of the putty. Heat cure acrylic was packed again around the putty and was closed with counter flask 1. A trial closure was done the check for excess amount of putty. The process was carried until a uniform thickness of heat cure acrylic resin was present all around the surface of putty. Final closure and curing of the denture was done with conventional manner. After curing the dentures were retrieved and were corrected for processing errors.

Two small opening were made in the posterior region with a bur and all the putty was retrieved with thick orthodontic wire and carver. The hollow cavity thus created was then cleaned and disinfected. The openings were then sealed with autopolymerizing resin. The dentures were then polished and finished. The cavity seal was verified by placing the dentures in water. Insertion of the dentures was done and post insertions instructions were given.
DISCUSSION
Treacher Collin’s syndrome is a rare syndrome, characterized by deformities of the facial region. The syndrome presents with various clinical feature affecting the eyes, ears, face and other oral structures. Rehabilitating these patients possess a multidisciplinary approach. However the treatment depends on the patient’s age, and needs and the extent of the physical as well as the psychological deformity. Generally these patients present with eye and ear deformity, hearing impairment which at times require surgical corrections. Oral problems as hypoplastic zygoma, maxilla and mandible and also various temporomandibular joint problems are also present.

The choice of rehabilitation for the patient can be implant supported overdenture. Since the patient had atrophic maxillary ridge with an increased interarch space hollow dentures were planned. Hollow denture in atrophic ridges reduced the load that is being transferred to the ridge while mastication and thereby reduces the resorption process.

Even though, the choice for rehabilitation can be implant supported overdenture, and ridge augmentation but many a times the patient who come with such a problem are geriatric patients with systemic illness, economic constrains, possess reluctance for a long duration treatment procedure and unwillingness for any kind of surgical procedure. Hence, the best way is to rehabilitate them with the conventional way.

Apart, from modifying the impression technique to get maximum denture bearing area, modifying the type of denture may also be better accepted by the patient.

REFERENCES