



International Journal of Applied Dental Sciences

ISSN Print: 2394-7489
ISSN Online: 2394-7497
IJADS 2016; 2(4): 62-64
© 2016 IJADS
www.oraljournal.com
Received: 11-08-2016
Accepted: 12-09-2016

Dr. Rupali Kamath
Professor & Head of the
Department, Department of
Prosthodontics, Dr. Syamala
Reddy Dental College and
Hospital, Bangalore, Karnataka,
India

Dr. Sarandha D L
Professor, Department of
Prosthodontics, Dr. Syamala
Reddy Dental College and
Hospital, Bangalore, Karnataka,
India

Dr. Savitha
Reader, Department of
Prosthodontics, Bangalore
Institute of Dental sciences,
Bangalore, Karnataka, India

Dr. Ashok
Senior Lecturer, Department of
Prosthodontics, Dr. Syamala
Reddy Dental College and
Hospital, Bangalore, Karnataka,
India

Dr. Javad Saleem
Senior Lecturer, Department of
Prosthodontics, Dr. Syamala
Reddy Dental College and
Hospital, Bangalore, Karnataka,
India

Dr. Ruchi Shreshtha
Post Graduate Student,
Department of Prosthodontics,
Dr. Syamala Reddy Dental
College and Hospital, Bangalore,
Karnataka, India

Correspondence

Dr. Ruchi Shreshtha
Post Graduate Student,
Department of Prosthodontics,
Dr. Syamala Reddy Dental
College and Hospital, Bangalore,
Karnataka, India

Contra-lateral esthetic management of patient with facial nerve palsy using cheek plumper

Dr. Rupali Kamath, Dr. Sarandha DL, Dr. Savitha, Dr. Ashok, Dr. Javad Saleem and Dr. Ruchi Shreshtha

Abstract

Esthetic management along with restoration of functional loss is imperative for patients with facial nerve damage to boost up their confidence in facing the world. Innovative approach is needed in edentulous patients with facial palsy to improve the cheek contour, oral competency and function. The clinical report describes the procedure for fabrication of a complete denture with detachable cheek plumper for desirable esthetic outcome & function.

Keywords: Facial palsy, cheek plumper

1. Introduction

Facial nerve palsy causes weakness of the muscles involved in facial expressions and eye closure. The face sags down and is drawn across to the opposite side on smiling. Voluntary eye closure may not be possible leading to damage of conjunctiva and cornea.

Unilateral loss of motor innervation to facial muscles paralyses the affected side of mouth. Its effects such as inability to close eyelid, poor blinking, drooping down and flopping away of lower eyelids can be seen. Eyes may become sore, red and watery as tears are not guided to the drainage ducts at the corner of eyes by lower eyelids. Loss of nasolabial fold and drooping of lips can also be seen.

To improve the lifestyle of patients with facial nerve damage, prosthodontic rehabilitation requires extra efforts. This article describes fabrication of cheek plumper on the contralateral side to support the cheek and reduce the nasolabial fold depth.



2. Case Report

A 55 years old, edentulous male patient reported to the department of prosthodontics with a chief complaint of replacement of his worn out dentures. Medical history revealed idiopathic facial palsy since the age of 6 years on right side of the face.

He had not undergone any treatment so far and was using eye drops for preventing dryness and infection.

Extra oral examination showed crucial symptoms on the right side, such as, asymmetry of face, absence of motion on the forehead, poor blinking of eye, incomplete closure of eyelid, drooling of tears, flopping of the eyeball, loss of nasolabial fold, drooping of lips while deviation of jaw on the left side was observed. Patient was presented with reduced neuromuscular control on jaw closer & phonation, that falls into category of Grade V-Severe Dysfunction by House & Brackmann (1985) On Intraoral examination resorbed mandibular ridge and shallow buccal sulcus on maxillary ridge was observed on the right side. Patient's previous denture revealed use of monoplane teeth.

2.1 Procedure

Preliminary impressions were made for both maxillary and mandibular arches followed border molding and final impressions. Tentative jaw relation was recorded and teeth arrangement was done using semi-anatomic teeth. To raise the cheek till a favorable position, the buccal flange of maxillary trial denture was modified by adding wax over buccal surface from canine till mesial surface of 1st molar. Moreover, the

extension also served as a curtain to prevent the food escaping into the buccal corridor.

During the procedure, no loss of retention, inconvenience or impingement was experienced by the patient. The detachable modeling wax piece was tried along with the denture till satisfactory esthetics were achieved. Separate acrylisations were carried out for dentures and plumper using heat cure acrylic, followed by finishing and polishing.

A simple tich button was used to attach the plumper to the buccal surface on the left side of maxillary denture. This would allow the patient to keep or detach the cheek plumper at his convenience. The male and female surfaces of the tich button were embedded on the detachable plumper and the buccal surface respectively. Eventually complete dentures with detachable cheek plumper was delivered to the patient. Denture care instructions, suggesting the use of cheek plumper were given to the patient. Recall checkups were done after 24 hour and 1 week interval. The plumper did not impose any pressure on the vestibule and the patient was contented with the retention. The cheek plumper significantly improved the profile and enhanced esthetics, masticatory efficiency and phonetics of the patient to his satisfaction.



Fig 1: Preliminary maxillary and mandibular casts.



Fig 2: Try -in with detachable plumper.



Fig 4: Acrylisation of complete dentures and plumper separately.



Fig 3: Cheek plumper in position.



Fig 5: Maxillary and Mandibular complete dentures with plumper



Fig 6: Maxillary complete dentures.



Fig 7: Without cheek plumper.



Fig 8: With cheek plumper.

3. Discussion

Neuromuscular disorders affect the nerves that control the voluntary muscles resulting in muscles weakness and wasting. Facial nerve palsy is a condition that not only affects patient's functioning, mastication, phonetics but also depreciates his confidence in facing world.

Detachable cheek plumper successfully restored the contour of cheek and nasolabial fold support. Advantages of detachable cheek plumper were ease of Retrievability, greater hygiene due to easy cleansibility and cost effectiveness.

The clinical report suggested the use of cheek plumper prosthesis that has potential as a treatment method to the problems and resultant loss of muscle activity associated with esthetic impairment. Detachable prosthesis proved to be a great comfort for the patient. Semi-anatomic teeth enhanced the physiological sensation of the mastication as compared to monoplane teeth. Enhancements in esthetics, functionality and physiological wellbeing have a massive influence on patient's personal life, as well as gratification to the maxillofacial prosthodontist providing the care.

4. Conclusion

The detachable prosthesis proved to be a good function as well as a psychological support to the patient, with impaired nerve function. In conclusion a conservative management of a completely edentulous patient with facial nerve palsy by modification of dentures improves patient's sense of well-being.

5. References

1. MK Sowmya, Prasad D Krishna, Rushad Hosi Nariman. A single complete denture with cheek plumpers to improve facial aesthetics Journal of Dental Research and Scientific Development 2015; 2(1):17-20.
2. Mallick B, Gosh S, Majumdar S, Goel P, Das S, Bhattacharya J Magnet Retained Cheek Plumpers to Enhance Denture Esthetics - A Case Report. IOSR Journal of Dental and Medical Sciences (IOSR-JDMS), 2015; 14(7): I, 23-27.
3. Da Costa G, Aras M, Chitre V, Rajagopal Pand, Nagarsekar A. Cheek Plumper with a Salivary Reservoir: An Esthetic and Functional Treatment Option for a Xerostomic Patient with Sunken Cheeks Dentistry 2015; 5(5):293 Dentistry 1-3
4. Mishra P, Mantri S, Deogade S, Gupta P. Denture Esthetics: There is more than teeth Replacement. IOSR Journal of Dental and Medical Sciences (IOSR-JDMS) 2014; 13(9):VIII, 65-67
5. Chaudhary A, Aggarwal A, Sharma A, Bansal A. Rehabilitation of a Completely Edentulous Patient using Cheek Plumper Prosthesis and Neutral Zone Technique. : A Case Report Journal of Dental Specialities, 2013; 1(2).
6. Diwa SK, Sehgal M, Arora A, Garg S. Restoring Esthetics in Hemiparalytic patient with detachable prosthesis: A case report. Journal of orofacial research. 2013; 3(2):125-127
7. Clinical Practice Guideline Summary: Bell's Palsy, Reginald Baugh, L. Ishii AAO-HNS Bulletin, 2013, 34-45
8. Chandra Kala V, Divya MS. Use of magnet retained cheek plumpers in complete dentures-A Dentist's perception of esthetics. JIADS- 2012, 4(1).
9. Clairf, Picard Jr. Complete denture esthetics. J Prosthet Dent. 2005; 93:386-94.
10. Navitha Verma, Vidya Chitre, Meena Aras. Enhancing appearance in complete dentures using magnet retained cheek plumpers. JIndian Prostho Soc. 2004; 4:35-38.
11. Larzen SJ, Cartern JF, Abrahamian. Prosthetic support for unilateral facial paralysis. J Prosthet Dent. 1976; 35(2):192-201.
12. Lazzari JB. Intraoral splint for support of lips in Bells palsy. J Prosthet Dent. 1955; 5(4):579-581.