ORIGINAL ARTICLE

Management Strategy for Post Insertion Problems in Complete Dentures

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ABSTRACT

Aim: To provide time bound management strategy for post insertion problems in complete dentures.

Summary: There is, inevitably, the potential for problems to arise subsequent to the insertion of complete dentures. These problems may be transient and may be essentially disregarded by the patient or they may be serious enough to result in the patient being unable to tolerate the dentures. Once a denture-wearing problem becomes apparent, it is important that it is addressed in a logical and systematic way. That is to say, an adequate history of the problem must be obtained and a careful examination of the mouth carried out so that an accurate diagnosis can be made, and an appropriate treatment plan devised. Placement of a removable prosthesis in the oral cavity produces profound changes that may adversely affect the oral tissues. Wearing complete dentures that function poorly could be a negative factor with regards to the maintenance of muscle function and nutritional status. A protocol encompassing time bound redressal of multifarious post insertion problems, can have positive outcome of the rehabilitative effort, from the prosthodontist.

Keywords: Balanced occlusion, Centric relation, Dentures, Mastication

INTRODUCTION

Providing complete denture service can be a rewarding as well as, not infrequently, a frustrating experience. This is so, as prosthetic rehabilitation of the edentulous patient is a tremendous challenge for the prosthodontist. He has to take into account the morphological and neuromuscular changes that occur as a result of edentulism, as well as all the medical and psychological problems, which compound the oral state of the patient. A genuine effort on the part of the prosthodontist has to be made to reiterate the salient aspects of education and motivation regarding the use of the prosthesis by the patient.

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TIME BOUND REDRESSAL OF POST-INSERTION PROBLEMS

The dental literature is replete with issues and problems faced by patients, consequent to denture insertion. However, the stress has been on the cause and its removal. What is at dearth is a protocol for adjustments of dentures at stipulated time post insertion. This is an attempt to list out the problems and their causes with respect to the post insertion recall visits at an interval of a stipulated period of time of 24 hours (Table 1), 72 hours (Table 2), one week (Table 3) and three weeks (Table 4).

After the first 2 weeks, the patient starts to use his complete dentures and makes an attempt at mastication with his new dentures. However, this phase is critical for the patient as well as for the prosthodontist with respect to the success or the failure of the prosthesis, which would depends upon, not only the ability of the patient to "chew" but is partly governed by the patient's confidence and ability to wear and use the prosthesis. A genuine effort on the part of the prosthodontist has to be made to reiterate the salient aspects of education and motivation phase.

Further at this juncture of time in post insertion, the patient will come across new set of difficulties which would have to be taken care off by a proper scientific as well as a sympathetic approach by the dentist.

DISCUSSION AND CONCLUDING REMARKS

Giving due consideration to probable causes for complaints, and the methodology/strategy adopted to rectify them, it is evident that most problems/ complaints arise with complete

Table 1: Problems after 24 hours of denture insertion:

Problem	Cause	Treatment
Trauma at the peripheral area	• Sharp edge of acrylic or an acrylic pearl[1]	• Use disclosing agent , an area of wipe off would be seen, remove the sharp edge and smoothen out the denture periphery
Gagging	• Overextended maxillary denture. • Decreased stability of the maxillary denture • Overextended mandibular denture[2] • Over polished maxillary denture	• Check for proper extension in the posterior palatal seal area • Check for Occlusal prematurities • Check for the over extension in the retromylohyoid area and correct accordingly[2]
Difficulty in swallowing	• Overextended mandibular denture in the retromylohyoid area • Increased vertical dimension of occlusion	• Check for over extension and correct accordingly
Pain or ulceration in the area of the labial or buccal frenii in either the maxillary and mandibular denture[1]	• Frenii not relieved properly	• Use disclosing media and correct accordingly
Difficulty in speech.	• This problem could range from lisping or whistling sound while speaking due to the incorrect contour of the palate of the maxillary denture, to a difficulty in getting adapted to the new dentures	• Check for the sounds while patients speak words containing a lot of the "s" alphabet and correct the palatal contour. If the problem is difficulty in getting used to new dentures, educate the patient.

Table 2: Problems which the patient presents with 72 hours after denture insertion

Problem	Cause	Treatment
Pain or area of ulceration present at the crest of the ridge	Usually a result of Occlusal prematurity.	Locate the prematurity using articulating papers and correct accordingly. No alterations to be done to the intaglio surface if it is found to be smooth.
Soreness or ulceration present at lingual part of the slope of the anterior part of the mandibular ridge	This is usually due to incorrect recording of the centric relation which results in shifting of the mandibular denture base resulting in trauma	If the shift from the centric is very minimal, it can be corrected using selective grinding. However if gross amount of movement of the mandibular denture base is seen, atleast one of the dentures have to be remade
Soreness at the area of the buccal frenum of the maxillary denture	This results when the retentive qualities of the denture holds it in place, while enough relief is not provided at the area of the buccal frenum	Use disclosing agent and provide relief to the buccal frenum as required.
Dentures making clicking sound when the patient tries to speak[3]	This is the result of increased vertical dimension of occlusion	If the increase is slight, correct it using selective grinding. If the increase is gross, remaking of the dentures may be required.
Ulcerations on the lateral borders of the tongue	This is usually due to a sharp edge of a tooth or too much lingual tilting of the Occlusal surface of the lower teeth leading to cramping of the tongue	Check for the cramping of the tongue by asking the patient to protrude the tongue slightly, if the mandibular denture lifts dentures have to be remade. However if the cause is a sharp cusp of a tooth, round it off.
Pain at posterior aspect of upper denture on opening	Flange at the buccal aspect of the tuberosity too thick.	Use disclosing agents to locate the area of excess, relieve and repolish.

Table 3: Complaints presented by the patient after about a week of denture insertion

Problem	Cause	Treatment
Pain about periphery of dentures possibly accompanied by pain in masseter and posterior temporalis muscles (classically pains increases as the day progresses)	Excessive vertical dimension of occlusion	If excess is less than 1.5 mm grind, if the excess is more that 1.5 mm. remake dentures at a new VDO
Appearance Complaints may arise from patient or relatives. Common complaints include: shade of teeth too light or dark; mould too big/small; arrangement too even or irregular or lacking diastema	Patient failed to comment at trial stage, or has subsequently been swayed by family or friends. Perhaps the change from the old denture to the replacement denture	Accurate assessment of patient's aesthetic requirements. Ample time for patient comments at trial stage. Use any available evidence to assist - photographs, previous dentures.

Table 4: Complaints reported by the patient after 3 weeks of denture insertion

Problem	Cause	Treatment
Cannot open mouth wide enough for food'. May be speech problems and facial pain especially over masseter region	Excessive OVD	Can remove up to 1.5 mm from occlusal plane by grinding, but if more is required, remake dentures
Eating difficulties. Dentures move over supporting tissues	Unstable dentures. Check that retentive forces are maximized and displacing forces minimized and all available support has been used .	Construct dentures to maximise retention and minimize displacing forces.
'Blunt teeth'	Broad posterior occlusal surfaces which replaced narrow teeth on previous denture. Non anatomical type teeth used where cusped teeth previously used	Where non-anatomical teeth used, careful explanation of rationale is required, may be possible to reshape teeth. Routine use of narrow tooth moulds recommended.
Speech problems Uncommon, but presence is of great concern to patient. May affect sibilant (eg s), bilabial (eg p,b), labiodental (eg f.v)	Cause may not be obvious. May be unfamiliarity - check that problem not present with old dentures.	Check for vertical dimension accuracy, and that vertical incisor overlap not excessive. Palatal contour should not allow excessive tongue contact or air leakage - assess using disclosing paste over denture palate while sound is made. It is recommended that the patient's speech is assessed at trial insertion visit
Gagging	This complaint could be the result of food getting under the maxillary denture base and causing the denture base to dislodge and irritate the dorsal surface of the tongue, leading to gagging	Check for proper extension and seal at the posterior palatal seal area and addition at the area with self cure acrylic resin could be done to achieve a better seal.

dentures, due to the combination of one or more of the following causes: Incorrect antero-posterior relationship, premature contacts, lack of balanced occlusion, excessive vertical dimension, cramped tongue space, inadequate periphery, under extended denture bases and incorrect impression procedures/ faulty impressions.

At this juncture, it become imperative to note that the aforementioned problems/ complaints are not all inclusive, but are the most common ones. Placement of a removable prosthesis in the oral cavity produces profound changes that may adversely affect the oral tissues. Mucosal reactions could result from mechanical irritation by the dentures, accumulation

of microbial plaque on the dentures, or occasionally by an allergic reaction to the denture material. Wearing complete dentures that function poorly could be a negative factor with regards to the maintenance of muscle function and nutritional status. Not surprisingly, a number of complete denture wearers are dissatisfied with one or both the dentures. A protocol encompassing time bound redressal of multifarious post insertion problems, can have positive outcome of the rehabilitative effort, from the prosthodontist.

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