Evaluation of Post-Operative Complaints in Complete Denture and Removable Partial Denture Wearers: A Questionnaire Based Study.

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Abstract:

Aim: To evaluate the post operative complaints in complete denture and removable partial denture wearers. Objective: All the patients of our dental college who underwent prosthetic treatment like complete and removable partial dentures were included in the study to evaluate the problems encountered immediately after post operative insertion of the denture. Fifty males and fifty females wearing removable dentures were taken for the study. Reason: to create awareness among dentists about the problems encountered with patients wearing removable dentures and manage them accordingly as patients’ comfort and satisfaction is of utmost importance. Key words: complete denture, removable partial denture, problems

INTRODUCTION:
The loss of teeth can impair function, esthetics and phonetics hence it should be restored with prosthesis. Despite the increasing use and remarkable benefits of dental implants, conventional dentures are still the most common type of oral prosthesis among elderly people[1]. Quality of the denture depends upon a number of factors like retention, stability, dimensions, occlusion, esthetics, speech, difficulty in chewing, food accumulation etc. Denture related problems are likely to arise during denture wearing due to alteration of anatomical structures, difficulty in adaptation, and technical faults in denture design and fabrication.
The completely edentulous patients reported better oral health and satisfaction with their dentures than the partially edentulous patients[2]. Despite all the problems encountered by patients it’s the dentists concern to be aware and to explain to the patients the need of periodical visits for maintenance of oral and denture hygiene and wearing habits.

AIM:
Against this background the aim of this study was to observe the post operative complaints of complete and removable denture wearers off all age groups by means of a simple questionnaire.

MATERIALS AND METHODS:
A questionnaire form was designed to determine the most common problem associated with complete and removable partial dentures. The questionnaire involved information about gender, age, type of denture and related problems. During the period of 10 months a total of 100 questionnaire forms were collected from the patients visiting the out patient in saveetha dental college in Chennai.

RESULTS:
The collected form involves 100 patients of which 50 were males and 50 were females having a male to female ratio of 1:1.

The age distribution for the total patients ranges between 21-80 years of age. The number of partial denture wearers was found to be 66% and that of complete denture wearers was 34% , the ratio being 1.94:1. Among these patients 70% of them had never replaced their denture, 28% of them replaced once and 2% had replaced twice. Of the 100 denture wearers 44% of them had been wearing dentures for less than 6 months, 34% for a year, 18% for a span of two years and 4% for four years. Among these 70% had never replaced their denture, 28% of them had their denture replaced once and 2% got it replaced twice.

Nearly 50% of the denture wearers had problems of loose fitting dentures. 49% of patients complained with chewing difficulties and speech difficulties. Majority of the patients (46%) also had ulcers due to the denture. 45% of them complained of food accumulation due to denture. 42% of them complained with discomfort of the denture . 75% of denture wearers had no problems in maintaining oral hygiene and 25% had difficulties. A good number of about 71% of wearers had no problem in wearing and removing the dentures. Only about 35% of them had pain while eating and change in eating habits. A good range of 85-95% of them had no problems with mouth opening due to denture, no limitation of facial expressions, no problems with size of denture, size of teeth, color of denture and quality of the same. 8% of wearers complained with decreased self confidence due to the current denture they wore. Denture related stress was observed in 19% of wearers. Around 18% of denture wearers also complained with halitosis due to denture wearing. In this study it was found that only 10% of patients went for regular follow ups. With regards to denture satisfaction, 48% said the denture was good but found it sometimes uncomfortable, 33% were not satisfied, 26% were satisfied and only 3% were very satisfied.
### Table 1:

<table>
<thead>
<tr>
<th>Problem in wearing or removing?</th>
<th>YES</th>
<th>MEAN ± SD</th>
<th>%</th>
<th>NO</th>
<th>MEAN ± SD</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Any problem in wearing or removing?</td>
<td>4.833333 ± 1.462494</td>
<td>0.29</td>
<td>11.83333 ± 12.53551</td>
<td>0.71</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maintaining cleaning and hygiene problems?</td>
<td>4.166667 ± 3.28718</td>
<td>0.25</td>
<td>12.5 ± 10.99621</td>
<td>0.75</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pain and discomfort?</td>
<td>7 ± 6.191392</td>
<td>0.42</td>
<td>9.666667 ± 8.013877</td>
<td>0.58</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Denture does not fit properly?</td>
<td>6 ± 8.563488</td>
<td>0.36</td>
<td>10.66667 ± 6.574361</td>
<td>0.64</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Denture is loose?</td>
<td>8.333333 ± 8.938058</td>
<td>0.5</td>
<td>10.83333 ± 9.136313</td>
<td>0.65</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pain while eating?</td>
<td>5.833333 ± 5.145116</td>
<td>0.35</td>
<td>10.83333 ± 9.136313</td>
<td>0.65</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Food gets stuck</td>
<td>7.5 ± 4.112988</td>
<td>0.45</td>
<td>9.166667 ± 7.112196</td>
<td>0.51</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Change in eating habits?</td>
<td>4.5 ± 2.929733</td>
<td>0.27</td>
<td>12.16667 ± 11.40784</td>
<td>0.73</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chewing difficulty?</td>
<td>8.166667 ± 6.914156</td>
<td>0.49</td>
<td>8.5 ± 7.112196</td>
<td>0.51</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Difficulty in speech?</td>
<td>8.166667 ± 7.174414</td>
<td>0.49</td>
<td>8.5 ± 6.849574</td>
<td>0.51</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Difficulty in opening mouth?</td>
<td>1.666667 ± 1.067187</td>
<td>0.07</td>
<td>15.5 ± 13.25079</td>
<td>0.93</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Limitation of facial expression due to denture?</td>
<td>2 ± 1.414214</td>
<td>0.12</td>
<td>14.66667 ± 13.03414</td>
<td>0.88</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Problem in size of teeth?</td>
<td>0.833333 ± 0.897527</td>
<td>0.05</td>
<td>15.83333 ± 13.87344</td>
<td>0.95</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Problem in color of teeth?</td>
<td>3.666667 ± 1.795055</td>
<td>0.22</td>
<td>13 ± 12.4499</td>
<td>0.78</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Problem in color of denture?</td>
<td>1.666667 ± 1.490712</td>
<td>0.1</td>
<td>15 ± 12.93574</td>
<td>0.9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Problem in quality of denture?</td>
<td>1.833333 ± 1.067187</td>
<td>0.11</td>
<td>14.83333 ± 13.27173</td>
<td>0.89</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bad breath due to denture?</td>
<td>3 ± 2.94392</td>
<td>0.18</td>
<td>13.66667 ± 10.88332</td>
<td>0.82</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stress and discomfort due to pain?</td>
<td>3.166667 ± 1.771691</td>
<td>0.19</td>
<td>13.5 ± 12.1758</td>
<td>0.81</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Decreased self confidence?</td>
<td>1.333333 ± 0.745356</td>
<td>0.08</td>
<td>15.33333 ± 13.62188</td>
<td>0.92</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Have you gotten any ulcer due wearing denture?</td>
<td>7.666667 ± 5.617433</td>
<td>0.46</td>
<td>9 ± 8.504901</td>
<td>0.54</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

![FIG 1: Problem in removing and wearing](image1)

![FIG 2: Problem in maintaining hygiene](image2)
FIG 7: Change in eating habits

FIG 8: Chewing difficulty

FIG 9: Speech difficulty

FIG 10: Halitosis
The post operative complains recorded was mainly by the order of:

1) Loose dentures (50%)
2) Difficulty in chewing (49%)
3) Difficulty in speech (49%)
4) Ulcer due to denture (46%)
5) Lodgment of food (45%)
6) Pain and discomfort (42%)
7) Denture does not fit properly (36%)
8) Pain while eating (35%)
9) Problem in wearing and removing (29%)
10) Change in eating habits (27%)
11) Problem in maintaining hygiene (25%)
12) Problem in color of teeth (22%)
13) Stress and discomfort due to denture (19%)
14) Halitosis (11%)
15) Limitation of facial expressions (12%)
16) Problem in quality of denture (11%)
17) Problem in color of denture (10%)
18) Decreased self confidence (8%)
19) Difficulty in opening mouth (7%)
20) Problem in size of teeth (5%)
DISCUSSION:
The replacement of missing teeth can be achieved by fixed or removable appliances, but generally it is accepted that removable dentures deteriorate in a shorter time period.[8] even though there are studies indicating more favorable results by careful planning, regular recall appointments, patient instruction and prosthetic adjustments.[9][10][11].
The most frequent complication in the present study was the loss of retention which is in agreement with previous reports.[12][13][14]. Most of the patients in the present study complained about the looseness and misfitting of their dentures. This complication is the main reason of need for replacement of their dentures. Additionally, loss of retention caused dissatisfaction of patients related to function. The loss of retention of the dentures may have impaired the patients’ ability to chew. A denture sore spot which is the second frequent encountered complication might also be related to the misfitting of the dentures. Sheppard et al.[15] revealed denture looseness as the main cause of complaints of denture wearers, followed by pain which corroborates the results of our study. Regular patient follow up by the dentist is of utmost importance as it helps rule out most of the post operative complains as mentioned above. And the patients interest also is of importance as they have to attend to their regular checkups as called by their dentists.

CONCLUSION:
This study involved patients having sought prosthodontic treatment at a university clinic, which may be regarded as a limitation because the subjects already had complaints related to their existing dentures. Within the limits of this study it can be concluded that in any given population the most frequently encountered problems were loose dentures and difficulty in chewing. Majority of the patients were satisfied with their dentures but found it uncomfortable sometimes. This study thus gives an awareness to dentists as to how important it is to follow up their patients for best results.

REFERENCES: