



RESEARCH ARTICLE

CHANGES IN ORAL HEALTH-RELATED QUALITY OF LIFE DURING IMPLANT TREATMENT IN PARTIALLY EDENTULOUS PATIENTS

*¹Keerthana, R., ²Dr. Dhanraj and ²Dr. Ashish

¹II BDS, Saveetha Dental College and Hospitals, No: 162, PH road, Chennai-600077

²Department of Prosthodontics, Saveetha Dental College and Hospitals, No-162, PH road, Chennai-600077

ARTICLE INFO

Article History:

Received 30th December, 2016
Received in revised form
07th January, 2017
Accepted 18th February, 2017
Published online 31st March, 2017

Key words:

Oral health,
Partially edentulous patients,
Implant.

ABSTRACT

Background: This study is to understand the oral health quality of life for implant placed patients since there are different methods of implant placement.

Aim and Objective: The aim of this study was to evaluate the changes in oral health-related quality of life during implant treatment for partially edentulous patients, and to evaluate the influence of the type of partially edentulous arch.

Materials and Methods: Twenty patients with a small number of lost teeth who underwent implant treatment were selected. Quality of life change during implant treatment was measured. The subjects completed the survey which comprised of 9 questions which were used to analyze the quality of life after implant placement.

Results: A total of 52 patients were selected (28 male and 24 female) and survey was conducted within the age limit of 20-50 and the age group between 41-50 had most implant placement for nearly 1-5 yrs. They were not much comfortable while eating. They felt socially happy then before. And they also felt physically rehabilitated but they did not feel much comfortable in smiling. They had an improved general health and personality.

Conclusion: Although there is a temporary functional limitation after implant placement in overall here may be an improvement after the definitive prosthesis placement.

Copyright©2017, Keerthana et al. This is an open access article distributed under the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

Citation: Keerthana, R., Dr. Dhanraj and Dr. Ashish, 2017. "Changes in oral health-related quality of life during implant treatment in partially edentulous patients", *International Journal of Current Research*, 9, (03), 48382-48384.

INTRODUCTION

The goals of prosthodontic treatment for tooth loss are recovery from functional and esthetic problems and improvement of patients' quality of life. Long-term success of oral implants in partially edentulous cases has been the basis for other clinicians to broaden the use of implants to patients in whom teeth are missing due to agenesis and/or trauma (Rohit A. Shah et al., 2015). Implant-supported fixed dental prostheses have been widely used as one of the prosthodontic treatments for missing teeth, and a high success rate has been reported (Yoshida et al., 2016). Oral related quality of life could be defined as an individual's perception of the impact of oral health on their quality of life. Oral health quality of life is characterized by the individual's perception of their position in life, in relation to their goals, expectations, standards, and concerns, and to the cultural conditions and the value system under which they live. The oral health quality of life is influenced by many variables: patients' age, existing pathologies, alcohol or tobacco habits, dental diseases, tooth

loss, prosthesis wear and also sociodemographic, financial, cultural, educational, psychological and dietary factors. In recent years, implant therapy has achieved more importance and significance thanks to a higher successful rate, new biocompatible and bone-stimulating materials, advanced technologies and the optimal effects on oral health quality of life reported by patients themselves (Bramanti et al., 2013). Posterior teeth play important roles in comminuting food, and postcanine teeth loss significantly reduces masticatory performance. Moreover, loss of a first-molar occlusal pair is a key factor in prosthetic restoration (Gonçalves et al., 2013). There is always a significant relationship noted between the oral health of the patient and general health. Oral health impact profile is used to measure the oral health quality of life by evaluation the functional limitations and psychosocial ability of the patient by few questions.

MATERIALS AND METHODS

A questionnaire comprising of 9 questions was given to 52 partially edentulous patients which included both maxilla and mandible who had underwent implant placement between the age 20 and 50 years with good general health, no medical

*Corresponding author: Keerthana, R.

II BDS, Saveetha Dental College and Hospitals, No: 162, PH road, Chennai-600077

risks, including osteoporosis, current bisphosphonate therapy, previous or current chemotherapy or radiotherapy with the ability to understand and respond to the questionnaire used in the study. Absence of soft or hard tissue inflammation in the oral cavity. The selected patients had adequate oral hygiene. They had sufficient bone volume to accept the implant. The patients were Agreeable to participate in the whole duration of this spermental study.

Exclusion criteria for the study subjects were maintained in order to avoid bias for sampling and included:

- Systemic or neurological disease that contraindicate implant surgery;
- Other health conditions: alcoholism, smoking (more than 15 cigarettes/d), severe immunosuppression;
- Psychological or psychiatric conditions that could influence a patient’s compliance to treatment~ Insufficient bone volume;
- Chronic and unresolved periodontal resorption.

All patients provided informed consent. After providing informed consent, patients were asked to fill the questionnaire in order to investigate the oral health quality of life of the participants after the implant rehabilitation.

- 1)Gender
a) male b)female
- 2)Age
a)20-30 b)31-40 c)41-50 d)above 50
- 3)For how many years are you using the implant?
a)1-5yrs b)6-10yrs c)above 10yrs
- 4)Do you feel comfortable while eating?
a)Yes b)No
- 5)Do you feel socially happy now?
a)Yes b)No
- 6)Do you feel physically rehabilitated now?
a)Yes b)No
- 7)Do you feel comfortable while smiling now?
a)Yes b)No
- 8)Has implant improved your general health?
a)Yes b)No
- 9)Do you think implant has improved your personality?
a)Yes b)No



RESULTS

A total of 52 patients were selected (28 male and 24 female) and survey was conducted within the age limit of 20-50 and the age group between 41-50 had most implant placement for nearly 1-5 yrs. They felt more comfortable while eating than before. They felt socially happy than before. And they also felt physically rehabilitated they did feel much comfortable in smiling. They had a improved general health and personality. Thus implant placement improvise the quality of life.

DISCUSSION

The main objective of this study was to highlight the impact of dental implant treatment on the oral health quality of life of a group of patients. The data collected showed that Oral health quality of life was improved after implant treatment (Mathieu Fillion *et al.*, 2013). Certain studies have reported that only a small improvement of Oral health quality of life was after acrylic interim prosthesis placement when immediate loading of the fixed dental prosthesis was applied in partially edentulous patients, whereas a definitive prosthesis with metal framework was the most effective at restoring oral health quality of life (Yoshida *et al.*, 2016). Even though they were positive results in certain studies Patients who were over age 60, with smoking habits, with a history of diabetes or head and neck radiation, or postmenopausal and on hormone replacement therapy experienced significantly increased implant failure compared with healthy patients. In unilateral mandibular distal extension edentulous patients, oral-condition-related QOL levels for dental implant patients were higher than those of patients with a removable partial denture or no restoration. In addition, in patients with bounded edentulous spaces, multidimensional QOL levels of patients with an implant-supported fixed prosthesis did not exceed those of patients with a resin-bonded fixed prosthesis in a short follow-up period. These reports suggest that QOL may differ depending on the type of partially edentulous arch. In the present study, subjects were divided into bounded and unilateral free-end edentulous spaces for evaluation. Although patient satisfaction was evaluated using patient-reported assessment items, such as pain, comfort, and the attributes of the physical, social, and psychological impact of the oral health status in the present study, there are other important factors related to the QOL, represented by the socioeconomic status and personality. As these 2 factors were not evaluated in the study, it may be necessary to perform multivariate analysis to examine relationships with them in future studies. Although we performed a prospective study, the number of subjects was small. Further studies with a larger number of subjects are required to elucidate the difference between maxilla and mandible, and gender- and age-related variations.

Conclusion

Although there is a transient functional limitation after implant placement in patients with a small number of lost teeth, an overall improvement of OHRQoL was observed after the placement of a definitive prosthesis (Yoshida *et al.*, 2016). Follow up is required to maintain the oral health quality of life after the implant placement.

REFERENCES

- Alessandro Lanza, Fabio Scognamiglio, Felice Femiano, Michele Lanza, 2015. Immediate, Early, and Conventional Implant Placement in a Patient with History of Periodontitis; PMC 10.1155/2015/217895
- Becker W, Hujoel P, Becker BE, Wöhrle P. 2016. Dental Implants in an Aged Population: Evaluation of Periodontal Health, Bone Loss, Implant Survival, and Quality of Life; NCBI Jun;18(3):473-9
- Bramanti, E., G. Maticena, F. Cecchetti, C. Arcuri, M. Cicciù, 2015. Oral health-related quality of life in partially edentulous patients before and after implant therapy: a 2-year longitudinal study; NCBI 2013 Oct 15;6(2):37-42.
- Brennan M1, Houston F, O'Sullivan M, O'Connell, 2010. Patient satisfaction and oral health-related quality of life outcomes of implant over dentures and fixed complete dentures; NCBI 2010 Jul-Aug;25(4):791-800.
- Christopher Okunseri, Amit Chattopadhyay, R Iván Lugo and Colman McGrath, 2010. Pilot survey of oral health-related quality of life: a cross-sectional study; *BMC oral health*, 10.1186/1472-6831-5-7
- George Priest, Jay Smith, Michael G. Wilson, 2014. Implant survival and prosthetic complications of mandibular metal-acrylic resin implant complete fixed dental prostheses; PMC 2013 : 17 : 4 : 546-548
- Gonçalves, T.M.S.V., C.H. Campos, G.M. Gonçalves, R.C.M. Rodrigues Garcia, 2013. Mastication Improvement After Partial Implant-supported Prosthesis Use, Dec;92(12 Suppl)
- Mathieu Fillion, 1 Dominique Aubazac, 1 Marion Bessadet, 2,3 Marlène Allègre, 2 and Emmanuel Nicolas, 2013. The impact of implant treatment on oral health related quality of life in a private dental practice: a prospective cohort study; NCB 1477-7525-11-197.
- Moy PK1, Medina D, Shetty V, Aghaloo, 2005. Dental implant failure rates and associated risk factors; NCBI 2005 Jul-Aug;20(4):569-77.
- Rieko Takemae, Takamoto Uemura, Hiroteru Okamoto, Tomoko Matsui, Masao Yoshida, Shinji Fukazawa, Kosuke Tsuchida, Koji Teruya, and Tooru Tsunoda, 2012. Changes in mental health and quality of life with dental implants as evaluated by General Health Questionnaire (GHQ) and Health Utilities Index (HUI); NCBI, Apr 13.10.1007/s12199-012-0275-9
- Rohit A Shah, Silvia V Rodrigues, Pragalbha N Pathare, Rajesh S Podar, Harshad N. 2015. Implants in adolescents; NCBI 2013 Jul-Aug; 17(4):
- Slade GD. and Spencer AJ. 1994. Development and evaluation of the Oral Health Impact Profile; NCBI, Mar;11(1):3-11.
- Tadashi Yoshida Chihiro Masaki, Hiedika Komai, Saori Misumi, Taro Mukaibo, Yusuke Kondo, Tetsuji Nakamoto, Ryuji Hosokawa, 2016. Changes in oral health-related quality of life during implant treatment in partially edentulous patients: A prospective study; *Journal of Prosthodontic Research*, October, Vol.60(4);