QUALITY OF LIFE IN IMMEDIATE LOADING FULL MOUTH REHABILITATION
A Practice Based Cohort Study

30° CONGRESSO OMD

SMART SCIENCE

C. D. MENDONÇA[123*], D. B. DE MACEDO[12], H. MADEIRA[124], A. ALMEIDA[124], C. NICOLAI[124], A. MATA[123]
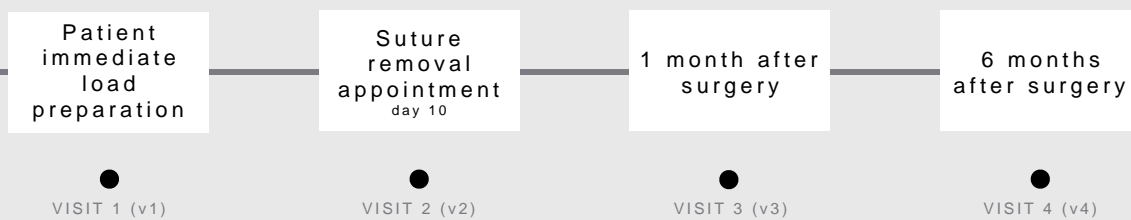
[1]Hugo Madeira Clinic - Advanced Aesthetics and Implantology, Av. Casal Ribeiro, Nº50, 1000-093, Lisbon, Portugal: [2]Smart Science - Practice Based Research, Av. Casal Ribeiro, Nº50, 1000-093, Lisbon, Portugal: [3]Biology and Oral Biochemistry Group, LIBPhys-FCT UID/FIS/04559/2013, Faculty of Dental Medicine, University of Lisbon, 1649-003, Lisbon, Portugal: [4]Egas Moniz Higher Education Cooperative, 2829-511, Lisbon, Portugal

INTRODUCTION AND OBJECTIVE

Full mouth rehabilitation with immediate loading implants has now became a predictable procedure whereas implant and prosthesis survival are concerned. However less information is known from the patient centered outcomes measures perspective. This was a practice based prospective single cohort before after study aiming at studying the Impact of immediate loading implant supported full mouth rehabilitation on the oral health related quality of life (OHRQoL).

MATERIAL AND METHODS

43 patients were recruited in a Portuguese dental clinic. Inclusion criteria were indication of full mouth rehabilitation with immediate loading protocol, exclusion criteria were nonnative Portuguese language. A Portuguese version of the Oral Health Impact Profile 14 (OHIP 14 PT) was administered at study baseline before the intervention (visit 1), day 10 on suture removal (visit2), 1 month (visit 3) and 6 months follow up (visit 4). Predictive variables were age, gender, household owning, marital status, education, profession, dental needs, type of rehabilitation (table 3) provided and visit number, its effects on the primary outcome were analyzed with a univariate Anova model. Primary outcome was total OHIP 14 PT Score and partial domains. Glass Effect size was calculated. Mean differences were tested with paired Student t test and significance was set at alpha 5 %. and beta 20%. 20 patients sample size had a power of 80% in detecting 1 point of difference in the total OHIP 14 PT score considering a standard deviation of 1.5.

Patient immediate load preparation	Suture removal appointment day 10	1 month after surgery	6 months after surgery
VISIT 1 (v1)	VISIT 2 (v2)	VISIT 3 (v3)	VISIT 4 (v4)

RESULTS

Total OHIP 14 PT scores at visits 1, 2, 3 and 4 were 18,00 +- 11,20 SD; 11,47+- 7,95 SD; 5,84+-4,07 SD; 5,02+-3,04 respectively (P<0,001Paired Student t Test). There was an extremely significant improvement in OHRQoL along the study follow up (p<0,001 Paired Student t Test) except for comparisons between Visit 3 and 4 for every OHIP 14 PT domain. Physical limitation exhibited the most diminished effect size of improvement. Psychological discomfort and disability showed the greater positive impact but all domains and total score showed great positive effect sizes. Except for marital status, no predictive variable had significant effect on the total OHIP 14 PT score.

Age (mean± DP)	Genre	Household owning	Marital status	Education	Profession	Dental needs	Type of Rehabilitation
57,23 ± 9,46	Female 63% Male 37%	Yes 88% No 12%	Single 9% Married 51% UF 9% Divorced 17% Widower 14%	Basic 14% Highschool 60% University 26%	Employee 70 % Retired 23% Unemployed 7%	Yes 100% No 0	Unimaxillary 25% Bimaxillary 65%

Table 3 - Predictive variables

Domains/Visits	Visit 1 (mean ± DP)	Visit 2 (mean ± DP)	Visit 3 (mean ± DP)	Visit 4 (mean ± DP)	Effect size v1 vs. v2	Effect size v1 vs. v3	Effect size v1 vs. v4	Effect size v2 vs. v3	Effect size v2 vs. v4	Effect size v3 vs. v4
Physical limitation	1,70 ± 1,86	1,74 ± 1,22	1,14 ± 0,91	0,95 ± 0,65	0,02502004	-0,3003481	-0,4004283*	-0,4969552*	-0,6498139**	-0,2032809
Physical pain	3,70 ± 1,99	3,05 ± 1,84	1,77 ± 1,17	1,02 ± 0,91	-0,3265044	-0,9678309**	-1,3409143**	-0,6958703**	-1,1006838**	-0,6349843**
Psychological Discomfort	4,49 ± 2,66	2,16 ± 1,95	1,02 ± 1,34	1,84 ± 1,13	-0,8749205**	-1,303615**	-0,9974154**	-0,5840744**	-0,1668931	0,60916099*
Physical Disability	2,67 ± 2,35	2,19 ± 2,05	0,79 ± 0,86	0,07 ± 0,34	-0,2080555	-0,8024452**	-1,1095444**	-0,6806209**	-1,0322725**	-0,8375449**
Psychological Disability	3,11 ± 2,48	1,56 ± 1,59	0,84 ± 0,90	0,93 ± 0,74	-0,6281823*	-0,9188104**	-0,8813178**	-0,4524941**	-0,9188104*	-0,8813178
Social Disability	1,09 ± 1,44	0,58 ± 1,14	0,19 ± 0,50	0,16 ± 0,57	-0,3541882	-0,6279294**	-0,6439911**	-0,3472167*	-0,3675896*	-0,046374
Inability	1,23 ± 1,34	0,19 ± 0,59	0,05 ± 0,21	0,05 ± 0,21	-0,7797065**	-0,8836326**	-0,8836326**	-0,2373216	-0,2373216	0
Total OHIP	18,00 ± 11,20	11,47 ± 7,95	5,84 ± 4,07	5,02 ± 3,45	-0,5837213*	-1,086426**	-1,1591266**	-0,7078861**	-0,8102598**	-0,1999563

Table 1 - Domais and visits

Table 2 - Effect size and p value: * statistically significant; ** very statistically significant

DISCUSSION AND CONCLUSIONS

This agrees with studies referring to other types of implant supported rehabilitations. Main weakness of this study is the short sample size whereas the univariate model is concerned. Enlarging sample size will enable modeling to become more robust and ascertain the real effect of other predictive variables in the primary outcome.

CONCLUSIONS

Full mouth rehabilitation with immediate loading protocol significantly increases the OHRQoL, from baseline through six months follow up.

BIBLIOGRAPHY

Cosola S, Marconcini S, et al: Oral health-related quality of life and clinical outcomes of immediately or delayed loaded implants in the rehabilitation of edentulous jaws: a retrospective comparative study. Minerva Stomatologica 2018, 67, pp. 189-95: Alzarea B: Assessment and Evaluation of Quality of Life (OHRQoL) of Patients with Dental Implants Using the Oral Health Impact Profile (OHIP-14) - A Clinical Study. Journal of Clinical and Diagnostic Research 2016, 10, pp. ZC57-ZC60: Reissmann D, Dard M, et al: Oral health-related quality of life in subjects with implant- supported prostheses: A systematic review. Journal of Dentistry 2017, 65, pp.22-40: JJOD 2817: Zhang L, Lyu C, et al: Quality of Life of Implant-Supported Overdenture and Conventional Complete Denture in Restoring the Edentulous Mandible: A Systematic Review. Implant Dentistry 2017, 26, pp. 945-950: Kriz P: Dental implants and improvement of oral health- related quality of life. Community Dent Oral Epidemiol 2012, 40, pp. 65-70 .