# STUDY OF THE INFORMATION LEVEL OF ELDERLY PATIENTS IN RELATION TO DENTAL IMPLANTS

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***Abstract:*** *Prophylactic methods, education, and the increasing levels of information networks have led to a late total edentation installation on the elderly patient, but their psychosomatic status reduces the possibilities of complex oral rehabilitation that ultimately compromises oral cavity functions. The objective of the study: The study aims to identify possible obstacles to the decision to accept implant restorations. Materials and methods: The study was undertaken on a group of 80 patients Health Insurance House of Defense, Public Order, National Security and Judicial Authority (OPSNAJ) insured and certificated in the Ambulatory Clinic of Dental Medicine of Sibiu Military Hospital, 45 women and 35 men. The patients had at least one total edentation, but all had total mandibular edentation and age between 65 and 75 years. The patients received a questionnaire on the basis of which their knowledge of implant systems and their attitude towards a possible rehabilitation of the total edentation with prosthetic structures on implants were evaluated. Results and discussions: The study found that most (88%) heard of implants but could not describe them, and the rest (7.5%) did not hear about their existence or (4.5%) were informed of the existence of implants from various sources (family, friends, television, etc.). The most reserved attitude with regard to dental implants is the price difference compared to classical prosthesis, the lack of perception of the need for implants for the prosthetic piece, the invocation of age with all the related geriatric disabilities. The results of the study show a lower level of information in women and a much deficient prosthetic field with more obvious resorptions, and in men more collateral geriatric diseases, most patients considering that it is not the age that prevents them from submitting to a prosthetic rehabilitation on implants. Conclusion: With advances in medicine and prolonging life expectancy, implant treatments are expected to increase to. Old age, the presence of systemic illnesses or some psycho-social barriers that block the decision to accept implants are often considered as negative factors in the application of such restorations.*

## INTRODUCTION

Deficient mastication will induce important nutritional consequences and aesthetics and phonation will be an obvious psychological discomfort. Even though implants are unquestionably effective in prosthetic rehabilitation, they are still rarely used in totally edentulous patients. Certainly, implant anchored complete denture is the reference treatment in prosthetic rehabilitation of the mandible but in elderly patients such restoration is compromised due to surgical protocol and postoperative status.

## PURPOSE

The study aims to identify possible obstacles to the decision to accept implant restorations.

## MATERIALS AND METHODS

The present study had the acceptance of the Ethics Committee of Military Hospital of Sibiu. Patients between 65 and 75 years of age were included but from this group were excluded OPSNAJ patients with cognitive impairments or those who had a implant-supported denture. On each patient medical records has been noted the chronic afflictions or the existence of other associated diseases.

Cognitive assessment was done through a questionnaire with a series of questions about the time and space of day-to-day life.

A short oral health profile in relation to age was also carried out using a Slade test from 1994 that included aspects of psychological discomfort, functional or motric limitations (e.g., hand motility) or physical or social disabilities.(1) After a brief clinical examination, an oral health assessment was carried out in relation to other systemic or geriatric illnesses, indicating the number of medications and daily dosages.

Patients with classic prosthesis being the majority, have been evaluated using Marx Kors test giving the classifications as follows: fully defective prosthesis to be replaced, acceptable prosthesis requiring lining or rebasing with keeping occlusion, good prosthesis that can be corrected in the medical office by fine retouching and prosthesis well done with stability during speech and mastication.

The questionnaire developed for identifying implant knowledge had a number of questions that patients answered with "yes" or "no" (e.g. Did you know that the implants are in the form of a screw or Did you know that implants are like artificial teeth roots?). The evaluation was made in relation to the number of positive or negative affirmations. After completing this passage of the questionnaire, a brief summary of the indications and effectiveness of implants, clinical procedures and the opportunity of insertions, the risks and the success rate in oral implantology were made. At the end of the questionnaire a series of preformed statements about the objections to hypothetical implant treatment were included, which will result

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in the patient's attitude towards implant treatment. In order to objectively express the reticence of the implants and to get the best understanding of the forms, the patient interview was done in a private atmosphere and the interviewing resident doctor was available for any questions or explanations.

## RESULTS AND DISCUSSIONS

Patients with the greatest discomfort were those with total mandibular prosthesis (45) and were placed in the acceptable range, but 18% of them required a new prosthesis (figure no. 1). The "good" prosthesis category was reduced and predominant in the total maxillary edentation. The level of oral care and of the prosthesis was above average (62%) and among those with poor hygiene 15% did not know and did not master the basic techniques of care and maintenance of classical prosthesis (figure no. 2). Two-thirds of patients considered "satisfactory" their attitude to oral health.

**Figure no. 1.Placement of mandibular and maxillary prosthesis**

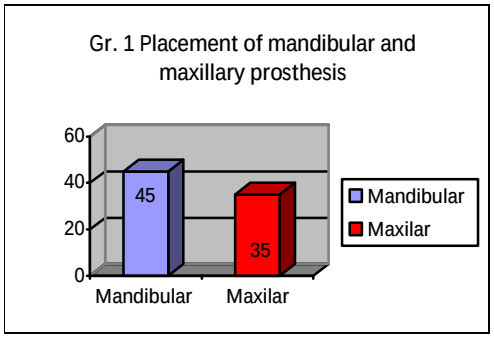
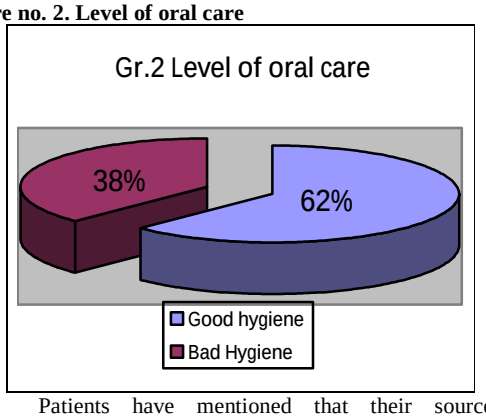



**Figure no. 2. Level of oral care**




Patients have mentioned that their source of information about implants comes from entourage (family, friends), from the dental practitioner and from media sources (video or written). Not all study participants who heard of implants were able to describe them, only 24 patients said the implant was shaped like a screw, and fewer knew the implant contained a metal called titanium.

No patient had a picture of the predictability of the implants or gave a random number. They did not present any relevant response to osteointegration, which was retrieved in allegations of failures in implant insertion but without identify risks. Some statements came close to reality, such as: "Implants do not work if you have resorbed bone and gum", others were unrealistic: "Implants may be rejected if you are allergic to the metal from which they are cast" or "Due to infection after surgery". More than half were convinced that there is an age limit until the implants are tolerated and the same amount had the belief that the dental implant provides better functioning of ADM.(2) Only 27% of them feel fit and see themselves with a complex implanto-prosthetic construction, the rest have refused such treatment for various reasons: "I'm too old for such an intervention", "It's too expensive for the live expectancy I have", "I'm too old to go through surgery", "with my diseases is risky", "I got used to classical prosthesis, I adapted and no longer felt the need for implants", "It's risky, what if I'm allergic and I reject the implant", "I have a life expectancy too short for such a protocol" or "I never imagined that I would support the presence of an implant in my mouth".(3)

In a classification of objections to implant therapy, by far it is the cost of such prosthetic reconstructions followed by "I'm too old", "I do not need it, I can manage with what I have".

Fear of surgery, care for general health and poor condition of the gums and bone at their age were among the last objections. They were not impressed by the information received from close relatives who have a prosthesis on implant and the 3-6 month period required for osteointegration.(4,5)

There was a reversal of the knowledge / refusal relationship so that respondents with the most limited information were those with a high degree of rejection of implant therapy, and the older the patients were, the more reluctant they were. As a secondary option in hypothetical acceptance of implants was poor quality of the prosthesis they wore, their attitude and their own judgment on the quality of oral and general health.

However, although some studies on implant treatment in the edentulous elderly suggested that age may be associated with a higher implant failure rate (6,7), the majority of previous studies indicated that increasing age alone is not a contraindication for implant treatment.(8,9,10) the findings that the use of implants in older patients was not contraindicated, suggest that bone has a reserved capacity for osteointegration.

In dental implant treatment, chronological age by itself is suggested as one of the risk factors for success, but it would not be a contraindication. In general, reserved capacity of bone and soft tissue make it possible to establish osteointegration in the long run.

Rather then aging itself, the specific nature of the disease process, such as osteoporosis for diabetes, and local bone quality and quantity at the implant site, mostly related to aging, are more important for successful dental implant treatment.(11)

## CONCLUSIONS

Old age is not a contraindication for implant restorations, and for the healthy patients without systemic disease and with a correct perception and compliance, it has been shown that there is no evidence that geriatric changes in bone metabolism hinder osteointegration and there was no significant difference in the success rate of dental implants in elderly patients compared to younger patients.

## REFERENCES

1. Slade DG, Murray H. Demonstrating the Need for Oral Health Education in Geriatric Institution probe. 1999;33(2):66-71.
2. Hyo-Jung Lee, Young-Kyun Kim: Studiu retrospectiv de scurtă durată a protezării cu implanturi la pacienţii geriatrici cu vârstă peste 70 de ani . Universitatea Bundang Seul, Koreea; 2010.
3. Gary SD, Beck Jr. Gerontologia creează premisele unei abordări specifice a pacientului vârstnic în contextul bio-psiho-social cu profund impact asupra inserţiei implanturilor. J. Periodontal Res. 2010;XII:764-771.

4. Levy BR, Slade MD. Longitudinal benefit of positive self-perception of aging on functional health: The Journals of Gerontology; 2002.
5. Kors M, Lehrbuch de Zahnarztlichen R, Prothetik M KR, Gerontoprothetik, 1994 Quintessenz Berlin; ed IIa 2010.
6. Brocard D, Barthet P, Baysse E, Duffort J F, Eller P, Justumus P, et al. A multicenter report on 1022 consecutively placed ITI implants: a seven year longitudinal study. Int J Oral Maxillofac implants. 2000;15:691-700.
7. Moy PK, Medina D, Shetty V, Aghaloo TL, Dental Implant Failure Rates and asociated risk factors Int J Oral Maxillofac implants. 2005;20:569-770.
8. Ochi S, Morris HF, Winkler S. Patient demographics and implant survival et uncovering: Denta Implant Clinical Research Group Interim Report no. 6 Implant Dent. 1994;3:247-51.
9. Bryant SR, Zarb GA. Osteointegration of oral implants in older and younger adults. Int J Oral Maxillofac implants. 1998;13:492-9.
10. Meijer HJ, Batenburg RH, Raghoebar GM. Influents of patient age on the success rate of dental implants supporting an overdenture in an edentulous mandible: a 3-year prospective study Int J Oral Maxillofac implants. 2001;16:522-6.
11. Kazunori Ikebe, Masahiro Wada, Ryosuke Kagawa, Yoshinobu Maeda. Departament of prosthodontics and Oral Rehabilitation, Osaka University Graduate School of Dentistry, 1-8 Yamadaoka, Suita, Osaka 565-0871, Japan. ,,Is old age a risk factor for dental implants, Japanese Dental Science Review. 2009;45:59-64.