

MATERIAL AND METHOD

The study was conducted on a study group of dentists (SG) consisting of 84 subjects (56 women, 28 men), aged between 24 and 50 years (average: 32.75 years \pm 7.264 years), selected from an initial group (IG) of 87 randomly selected subjects.

The subjects were asked to answer an anonymous questionnaire, formulated in Romanian, distributed in physical or electronic format. It took about 5 minutes to complete the questionnaire, consisting of 14 closed questions, with pre-formulated, single or multiple answers, divided into 3 parts: demographic data; data highlighting the level of knowledge about the flexible partial dentures (indications, contraindications, classes of materials from which this type of prosthesis is made); clinical data.

The criteria for inclusion in the study were:

1. Expressing consent for participation in the study;
2. At least one prosthetic treatment, of a partially edentulous patient, with flexible partial dentures.

The exclusion criteria from the study was the failure to complete the questionnaire in full. In the present case, 3 respondents were excluded.

The information was recorded and subsequently electronically processed using the STATA® 16.0 programme for Windows 10 Home®. Simple descriptive statistics (amounts, medium, median), Pearson Chi-Square test, Fisher and Likelihood have been used to analyse qualitative, quantitative variables and associations at a statistical level $p < 0.05$. Microsoft Excel 2016 was used for graphi-

cal expression of results. The independent variables considered were: age, sex, number of years of practice, activity environment, medical degree and type of specialisation.

OUTCOME

A percentage of 52% (n = 44) of SG was represented by specialists or ongoing specialists, most of them consisting of prosthetic specialists: interns 25% (n = 21), specialists 10% (n = 8) and primary doctors 2% (n = 2). Regarding the years of medical practice, 46% (n = 39) have less than 5 years of practice.

Flexible denture was a prosthetic removable solution adopted in practice by 20% (n = 17) of the responding physicians 42% (n = 35), as a long term solution (42%, n = 35).

In general, patient comfort (76%, n = 64) and higher aesthetic properties (54%, n = 45) were the main reasons why dentists chose a partially flexible prosthetic for the prosthetic treatment of the patient (Fig. 1).

The main clinical situations where dentists did not indicate the partial flexible prosthesis were deficient oral hygiene (48%, n = 40) and acute and chronic infections of the mucosa (49%, n = 41) (Fig. 2).

In the evolution of the patient, the main problems found at the partial flexible prosthesis were food pigment impregnation of the base (tea, coffee, wine etc.) (51%) associated with faster loading of debridments (29%). Limited possibilities of repair (34%) of the base, clasps and detached teeth

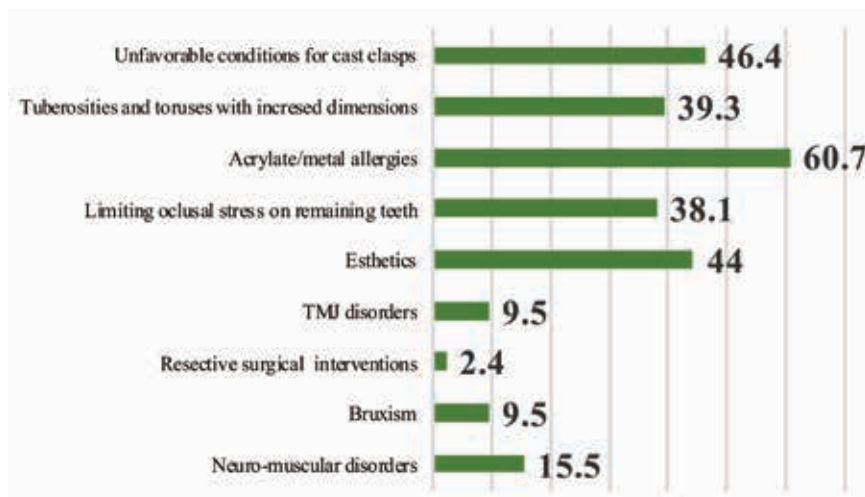


FIGURE 1. Clinical situations for indication of flexible dentures by the SG (%)

significance that 59% (n = 23) examined their patients with partial flexible prosthesis twice a year (Pearson Chi-square = 28.4, p = 0.005, 99% confidence index).

Regarding the satisfaction of respondent physicians concerning the evolution of the patient with a flexible partial prosthesis, (64%, n = 54) were delighted by their progress and 18% (n = 15) were little or not at all excited.

DISCUSSIONS

In general, 1 out of 5 Romanian dentists reported that they use flexible partial dentures in their current practice, unlike Pun D.K. et al. research, where a lower frequency of 1 out of 3 is found [4].

Dentists indicated the flexible partial denture as a long term prosthetic solution (63%) and the main reasons for recommending this treatment were patient's comfort and superior aesthetics. These aspects are also found in the study of Hill E.E. et al., but the financial aspect is the main reason why, the flexible partial denture is indicated as a long-lasting solution [5].

The main contraindication refers to patients' poor oral hygiene (48%), in direct correlation with the deficiencies observed in the followed patients (fetid halena, caries on main abutment teeth, gingival bleeding) and at the flexible partial dentures (impregnation with food pigments and loading with food debris). Bosînceanu et al., Takabayashi Y. et al. and Kenji F. et al. noted the same aspects in their studies [2,6,7].

Conflict of interest: none declared

Financial support: none declared

REFERENCES

1. Bratu D, Nussbaum R. Bazele clinice și tehnice ale protezării fixe. *Editura Medicală*, 2009:412-20.
2. Kenji F, Chikahiro O, Masaru Y, Ichiro A, Masahiro A, Satoshi I, Toshikazu K, et al. Clinical application of removable partial dentures using thermoplastic resin, Part II - Material properties and clinical features of non-metal clasp dentures. *Journal of Prosthodontic Research*. 2014;58(2):71-84.
3. Kenji F, Chikahiro O, Masaru Y, Ichiro A, Masahiro A, Satoshi I, Toshikazu K, Yasuhiko K, Misao K, Osamu K, Tetsuya S, Kazuhiro N, Maki H, Shin-ichi M, Mutsuo Y, Hideki A, Takahiro O, Hisatomo K, Katsushi T, Yoshizo M, Hiroaki T, Masanori F, Kazuyoshi B, Kiyoshi K, Hirofumi Y. Clinical application of removable partial dentures using thermoplastic resin, Part I: Definition and indication of non-metal clasp dentures. *Journal of Prosthodontic Research*. 2014;58(2):3-10.
4. Pun DK, Waliszewski MP, Waliszewski KJ, Berzins D. Survey of partial removable dental prosthesis (partial RDP) types in a distinct patient population. *Journal of Prosthetic Dentistry*. 2011;106(1):48-56.
5. Hill EE, Rubel B, Smith JB. Flexible removable partial dentures: a basic overview. *General Dentistry*. 2014;62(2):32-6.
6. Bosînceanu DN, Bosînceanu DG, Forna NC. Acrilatul flexibil – soluție terapeutică viabilă în protezarea amovibilă. *Revista Română de Medicină și Educație Dentară*. 2015;4(2):7-10.
7. Takabayashi Y. Characteristics of denture thermoplastic resins for non-metal clasp dentures. *Dental Materials Journal*. 2010; 29:353-61.
8. Hundal M, Madan R. Comparative clinical evaluation of removable partial dentures made of two different materials in Kennedy Applegate class II partially edentulous situation. *Med J Armed Forces India*. 2015 Dec;71(Suppl 2):S306-12.

Dispensarization of prosthetic patients was performed twice a year by almost half (49%) of participating dentists, and half of them faced prosthetic deficiencies after 1 or 2 years. Hill E.E. et al. note that 50% of doctors who noticed deficiencies in the abutment teeth, resumed prosthetic treatment one year after the application of a flexible partial prosthesis [5].

Despite the above, more than half of the respondent physicians (64%) were delighted by the flexible denture evolution's in patients. This can be associated with the biological adaptation of prosthetic patients with flexible partial prostheses, which is approximately equal to those, who are rehabilitated with metal-based partial prostheses, highlighted aspects by Hundal M. et al [8].

CONCLUSIONS

Flexible partial prosthesis is a method of treatment, which should be correctly recommended depending on the characteristics of the prosthetic field and of the patient in general.

Although esthetics and patient's adaptation is superior, it is indicated more as a provisional treatment solution, as a result of deficiencies that occur over time – impregnation of the base of the denture associated with bad breath.

Acknowledgement

In this article, all authors have equal contribution with the first author.