International Journal of Psychosocial Rehabilitation, Vol. 24, Issue 04, 2020
ISSN: 1475-7192

Evaluation of retrospective analysis of surgical treatment of inflammatory and dystrophic periodontal lesions according to the data of the Department of Dental Surgery at the Tashkent State Dental Institute

ElbekAzizbekovich Gaybullaev,[1]Jasur Alimdjanovich Rizaev,[2] Alexander Yuryevich Vasiliev, [3]Zulfiya Khabibullaevna Gaybullaeva,[4]Bekhzod Shukhratovich Abdullaev[5*]

Abstract*---This article discusses data on the retrospective analysis of surgical treatment of inflammatory and dystrophic periodontal lesions and the reasons for patients refusing medical treatment within the period from 2009 to 2019, conducted at the Department of Surgical Dentistry of Tashkent State Dental Institute (TSDI). It has been proved that the most frequent common factors causing periodontitis are gastrointestinal diseases, and site related factors should include tooth malposition. Negative experience in medical history is proved prevailing reason for patients refusing surgical treatment using promising techniques, as many patients are aware of the increased teeth sensitivity and dental cervix exposure after the procedure. These are the reasons whythis problem remains urgent today.*

Keywords*---retrospective analysis; correlation linter connection; chronic periodontitis*

I. INTRODUCTION

The study of the etiology and pathogenesis of chronic generalized periodontitis remains relevant today. Despite the large number of studies and the development of new diagnostics and treatment methods, the incidence of periodontitis tends to increase steadily. Although the role of periodontal pathogenic microflora in the development of this pathology is not in doubt [1, 2], it is not possible to explain all aspects of periodontitis etiopathogenesis in the light of microbiological theory. Periodontitis is characterized by a specific nature of microflora with a predominance of anaerobic forms. The most virulent are communities of periodontal strains, such as Aggregatibacteractinomycetemcomitans, Porphyromonasgingivalis, Prevotella intermedia, Bacteroides forsythus, Tneponemadenticola, Weilonella recta [3,4]. Campylobacter rectus, Tannerella forsythia, Prevotellanigrescens, Eikenellacorrodens, Peptostreptococcus micros, Eubacteriumnodatu also have periodontal activity. Interesting, that the formation of periodontal microbial complexes is associated with the interaction of microorganisms within the community on mutually beneficial terms, when waste products of some strains serve as a nutrition source for others, and the exchange of genetic material is possible in order to increase resistance to antibacterial drugs. The alterative effect of bacteria on periodontal tissues is mediated through endo-

1PhD, assistant professor, Department of Pediatric Dentistry, Tashkent State Dental Institute
2Professor, Rector of the Tashkent State Dental Institute
3Professor, Corresponding Member of the Academy of Medical Sciences, Russian Federation
4Clinical resident, Tashkent Institute of Postgraduate Medical Education
5 Department of Normal and Pathologic Physiology, Tashkent Medical Academy

DOI: 10.37200/IJPR/V24I4/PR201329
Received: 22 Sep 2019 | Revised: 13 Oct 2019 | Accepted: 15 Jan 2020

and exotoxins and proteolytic enzymes that can increase the permeability of gingival epithelium, disrupt collagen synthesis by fibroblasts, inhibit cell activity [1, 2, 3, 4].

The modern program of chronic periodontitis therapy includes several approaches, beginning with therapeutic (professional teeth cleaning, dental calculus and plaque removal), orthopedic (grinding, wearing orthopedic construction) and ending with surgical methods (nonsurgical or open flap debridement, Widmann-Neumann surgery, the use of osteoplastic materials or allografts). One of the objectives of the international and national consensus documents on the treatment of chronic periodontitis is to inform patients about the goals of therapy and the various ways to achieve these goals. For this purpose, various educational programs have been developed, which are now widespread at various stages of treatment among patients with chronic periodontal diseases. The factor of patients awareness significantly reduces the number of emergency and re-hospitalizations, especially in patients with major severity of illness.

Rehabilitation of patients with chronic inflammatory and dystrophic periodontal lesions gains in importance today.Given the fact that doctors of various specialties are engaged in chronic periodontitis treatment –GP dentist, dental therapist, orthopedist – in practice it is rarely possible to achieve concurrence of their actions and good cooperation with patients, and,as a result, an adequate treatment of chronic periodontitis. Short patient-doctor contact and ofteninsufficient capacity of the doctor or medical institution aggravates this situation. All these facts contribute to the relevance of this study.

The main objective of this study is to conduct a retrospective analysis of outcomes of surgical treatment of inflammatory and dystrophic periodontal lesions and to study the reasons for patients refusing medical treatment according to the data of Department of Surgical Dentistry of Tashkent State Dental Institute.

II. MATERIALS AND METHODS

In order to achieve this goal, we analyzed treatment outcomes of 15478 clinical charts over a 10-year period (2009-2019). Chronic periodontitis was diagnosed in 5681 (36.7%) of 15478 clinical charts. Chronic generalized periodontitis of major severity was diagnosed in 1453 (25.6%) of 5681 selected clinical charts.

The Summary sheets of dentists Performance Records of the state and private dental clinics of Tashkent for a 10-year period (2009-2019) were analyzed. The analysis of 867 patients Dental Medical Cards and 365 Dentist Reporting Forms No. 39-2/u of 95 dentists was carried out.

The sample size for analysis ofthe reasons for patients refusing medical treatment is approved by the WHO recommendations (2019).

To conduct an exploratory study and identify possible reasons for patients refusing treatment, a special questionnaire form was developed. In addition to personal data checklist (full name, age, gender, place of residence, profession) it includedquestions about previous and concomitant diseases, eating habits, unhealthy habits, teethbrushing frequency, awareness of oral hygiene methods and products, as well as questions on dental and periodontal health.

Statistical data processing was carried out using variation methods of statistics and included Student-Fischer test, nonparametric Mann-Whitney U-test, Wilcoxon signed-rank test and Kruskal-Wallis test for indirect sampling.

DOI: 10.37200/IJPR/V24I4/PR201329
Received: 22 Sep 2019 | Revised: 13 Oct 2019 | Accepted: 15 Jan 2020

III. RESULTS

As a result of the study it was found that the most common patient complaints were of bleeding gums (87%), bad breath (23%), painful gums when brushing and eating (35%), dental calculus (60%), dental cervix exposure (25%), tooth mobility (12%). 45% of surveyed patients admitted that they have unhealthy habit (smoking). The majorityof patients were familiar with teeth brushing method and brushed their teeth two times a day regularly (after breakfast in the morning and before going to bed - 55% of patients, before breakfast in the morning and before going to bed - 21% of patients), 15% of patients brushed their teeth once a day, andonly 9% of patients brushed their teeth irregularly.

As a result of medical history analysis, the following parameters were uncovered: the duration of the disease in the main group and the comparison group averaged 6.3±2.4, 5.3±1.8, respectively; the social level averaged 1.8±0.7, 2.1±0.9 with a norm of 2.1±1.0; physical activity averaged 0.52±0.46, 0.64±0.35 with a norm of 0.61±0.37; the smoking factor averaged 0.45±0.43, while in the control group it was 0.52±0.42. Internal and external motivation factors were also calculated. The motivation factors in all groups were satisfactorily low.

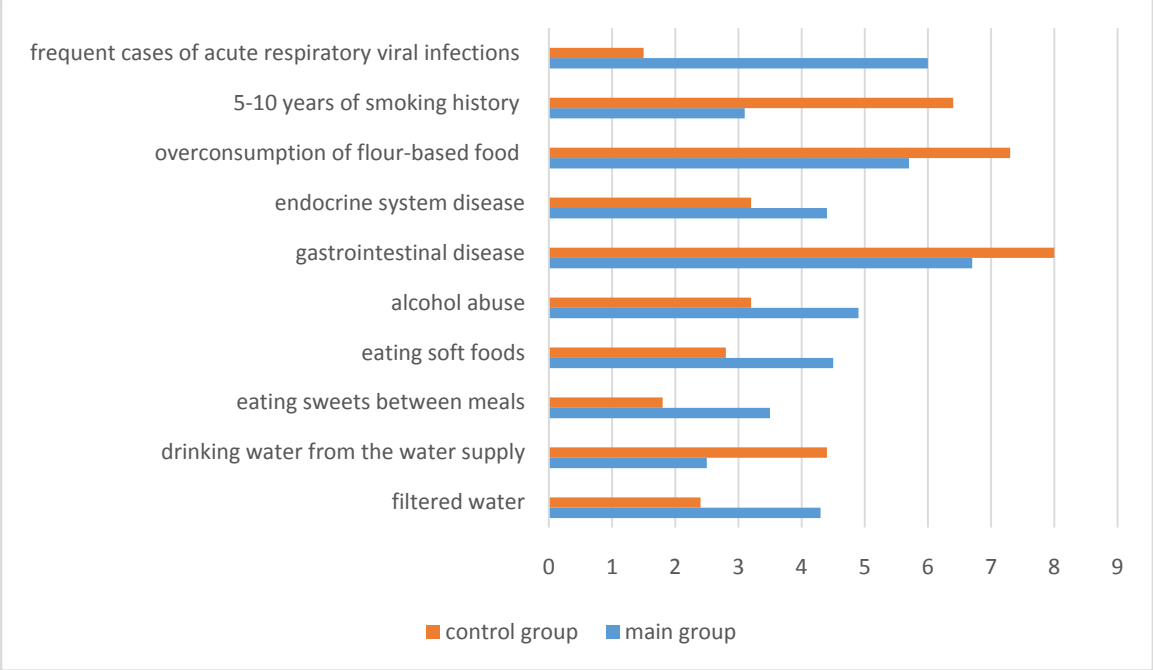

Figure 1. Frequency of occurrence of common risk factors among the surveyed patients

DOI: 10.37200/IJPR/V24I4/PR201329
Received: 22 Sep 2019 | Revised: 13 Oct 2019 | Accepted: 15 Jan 2020

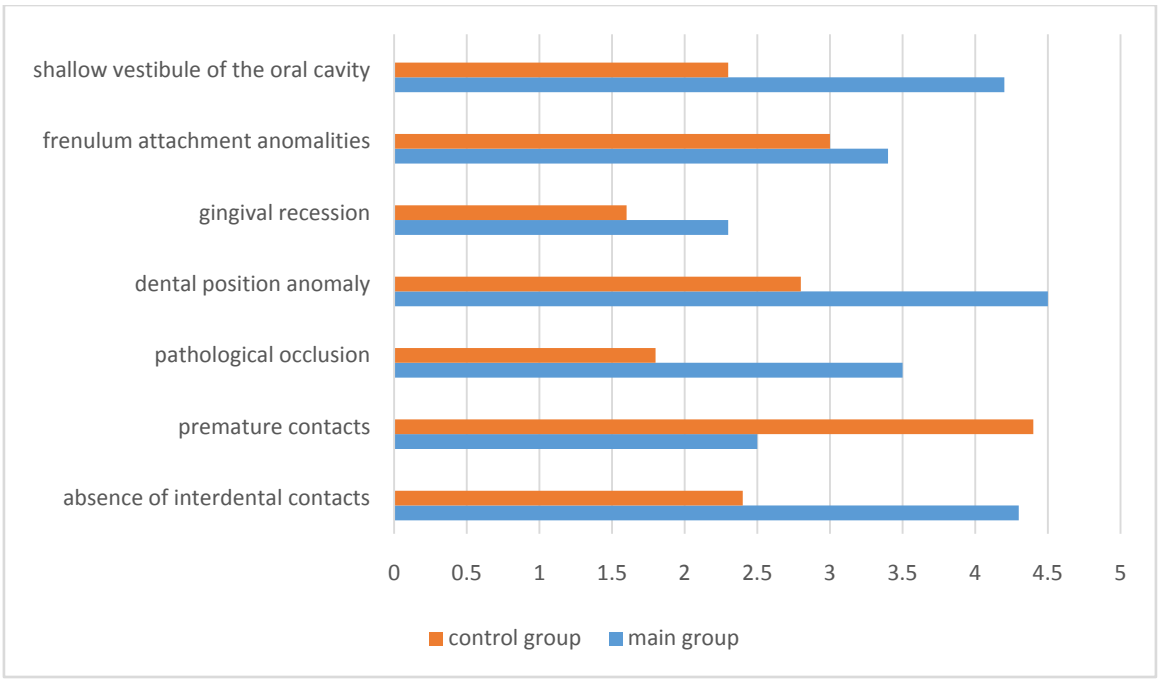

Figure 2. Frequency of occurrence of site related risk factors among the surveyed patients

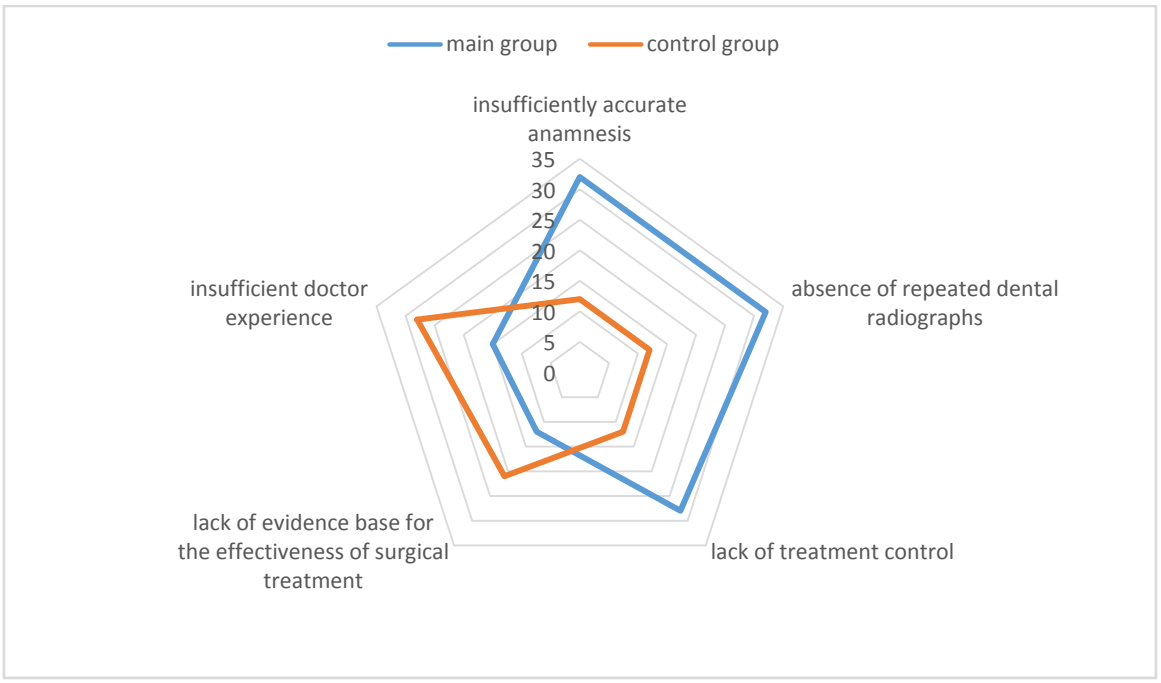

Figure 3. Reasons for patients refusing surgical treatment according to the data of Department of Surgical Dentistry of Tashkent State Dental Institute

After analyzing treatment outcomes, it was found out that the reasons for patients refusing medical treatment in many cases were due to insufficiently accurate anamnesis (86.7%), which led to the absence of repeated dental radiographs (76.9%) proving remission of periodontitis and therefore the lack of treatment control (81.2%).

DOI: 10.37200/IJPR/V24I4/PR201329
Received: 22 Sep 2019 | Revised: 13 Oct 2019 | Accepted: 15 Jan 2020

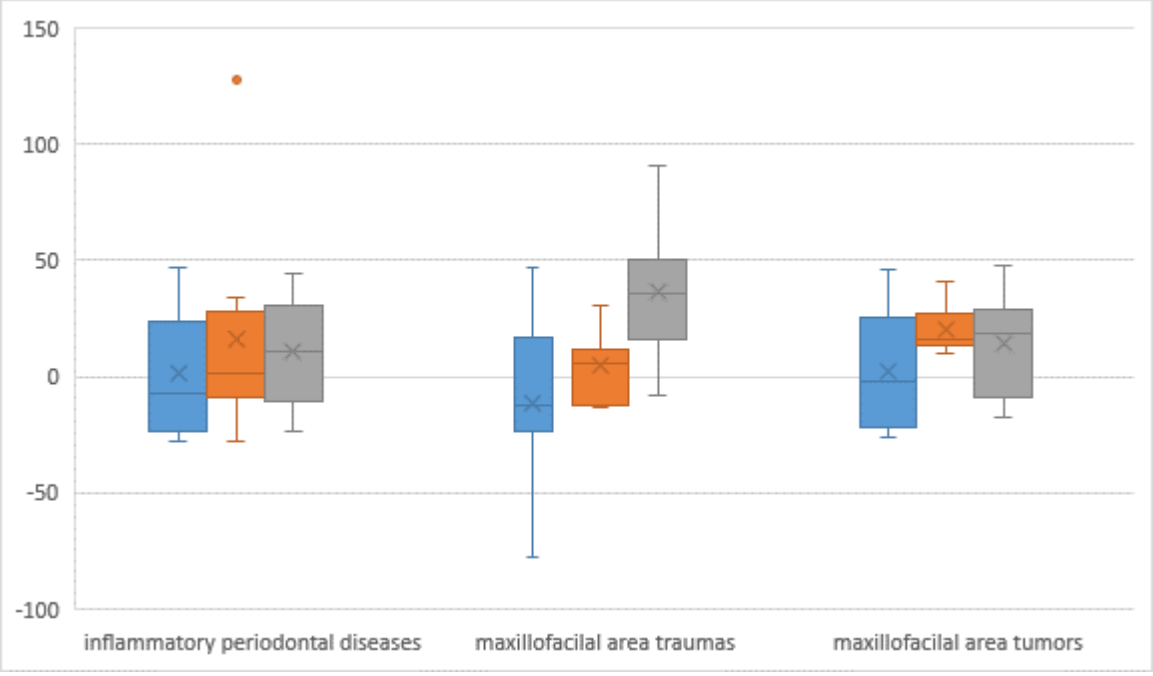

Figure 4. Kruskal-Wallis test for the evaluation of retrospective analysis

Figure 4 shows that inflammatory periodontal diseases and maxillofacilal area tumors have an average incidence, occupying an average of 54.37% among the most common nosological diagnoses. Moreover, maxillofacilal area traumas occupy a leading place according to the clinical charts studied by us for a period from 2009 to 2019.

Summary

1. According to the study results and after a multifactorial retrospective correlation analysis we conclude that the reasons for patients refusing surgical treatment are due totheir bad experience from previous treatment, disease recurrence, teeth sensitivity after therapeutic procedures and dental cervix exposure, which led to aesthetic and physical discomfort.
2. The retrospective analysis also shows that the most frequent common factors are gastrointestinal diseases, which is consistent with the literature data; and among the site related factors, tooth malpositionis the main predisposing factor for the disease development.

REFERENCES

[1] Allen P. F., McMillan A. S., Locker D. An Assessment of the responsiveness of the Oral Health Impact Profile in a clinical trial // Comm Dent Epidemiol. 2018; 29: 175-182.
[2] Bowling A. Measuring health // A Review of Quality of Life Measurement Scales. 3rd ed, Open University Press; 2015; Buckingham. – P. 7-9.
[3] Brand V.S., Bray K.K., MacNeill S., Catley D., Williams K. Impact of single-session motivational interviewing on clinical outcomes following periodontal maintenance therapy.// Int J Dent Hyg 2013 - 11: 134-141.
[4] Di Paola R., Mazzon E. Rosiglitazone reduces the evolution of experimental periodontitis in the rat// J. Dent. Res. 2016 Vol.85 №2 p.156-161.
[5] Diet, nutrition and the prevention of chronic diseases: World Health Organization, 2019 WHO Technical Report Series, № 916.

DOI: 10.37200/IJPR/V24I4/PR201329
Received: 22 Sep 2019 | Revised: 13 Oct 2019 | Accepted: 15 Jan 2020

[6] Escocard R.D., Kanashiro M.M., Peteretski J.H. Neutrophils regulate the expression of cytokines, chemokines and nitric oxide synthase/ nitric oxide in mice injected with Bothropsatrox venom//Immunobiology 2016 T. 22 №2 p. 37-46.
[7] Gonzales J.R., Rabel A., Kalcher S.G., Mund S. Microbiological study on the prognosis of immediate implant and periodontal disease//MKG 2016 Vol.10 №1p.7-13.
[8] Heydecke G., Locker D., Awad M. A., Lund j. P., Feine J. S. Oral and general health-related quality of life with convertional and implant dentures // Community Dent Oral Epidemiol 2019; 31: P. 161-168.
[9] Arzpeyma, S.F., BahariKhorram, P.Large perirectal epidermoid cyst in a young woman(2018) International Journal of Pharmaceutical Research, 10 (4), pp. 362-364.https://www.scopus.com/inward/record.uri?eid=2-s2.085057155375&partnerID=40&md5=678a0fdc3db20f0aec74fef8de73f06a
[10] Latha, M. (2018). Automatically Detecting Oral Cancer Status. Journal of Computational Information Systems, 14(6), 169 - 172.
[11] Monica,K.M. (2018). Three Dimensional Modernization Using Stereo Images. Journal of Computational Information Systems, 14(6), 180 - 189.
[12] Globus, G. A quantum brain interpretation of heideggerian cognitive science (2018) NeuroQuantology, 16 (10), pp. 78-81.
[13] Kaufman, S.E. The unified-field model of reality (2018) NeuroQuantology, 16 (10), pp. 26-59.

DOI: 10.37200/IJPR/V24I4/PR201329
Received: 22 Sep 2019 | Revised: 13 Oct 2019 | Accepted: 15 Jan 2020