

UDC:616.314-089+616.314-006

TREATMENT OF GENERALIZED PERIODONTITIS IN PATIENTS WITH GENERAL-SOMATIC PATHOLOGY OF THE DIGESTIVE SYSTEM

Kostenko Ye.Ya.* , Dobrovolska M.K.** ,
Heley V.M.*** , Heley N.I****

* *Doctor of Medical Sciences, professor,
Department of Orthopedic Dentistry,
Uzhhorod National University, Uzhgorod,
Ukraina*

** *Candidate of Medical Science, Associate
Professor, Head of the Department of
Therapeutic Dentistry, Uzhhorod National
University, Uzhgorod, Ukraina*

*** *Assistant, Department of Surgical
Dentistry, Maxillo-Facial Surgery and
Oncology, Faculty of Dentistry, Uzhhorod
National University, Uzhgorod, Ukraina*

**** *Postgraduate, Department of Surgical
Dentistry, Maxillo-Facial Surgery and
Oncology, Faculty of Dentistry, Uzhhorod
National University, Uzhgorod, Ukraina*

Summary : The revealed features of the species and quantitative composition of the microflora of periodontal pockets, served as the basis for the development of treatment of generalized periodontitis. Patients with diseases of the gastrointestinal tract developed and proposed a method for the appointment of antibacterial drugs with high efficiency in relation to anaerobic microflora.

The authors emphasize the positive effect of the application as complex pathogenetic therapy of professional oral hygiene and the use of antiseptic therapy, which allows normalization of oral hygiene and stable remission of inflammatory periodontal diseases in patients with disorders of the gastrointestinal tract

Key words : generalized periodontitis, digestive system, helicobacterial infection, photo-activated disinfection, anaerobic microflora, periodontal pockets, stomach ulcer and duodenal ulcer

According to WHO, generalized periodontitis is one of the most common dystrophic and inflammatory diseases of the maxillofacial area.

A leading role in the initiation and further progress of this pathology is played by the microbial factor, the choice of methods of treatment and drugs, the presence of concomitant general-somatic pathology [4 - 6].

According to the literature, in a significant number of patients with peptic ulcer in the stomach and duodenum, pathological changes on the part of the mucous membrane of the mouth and periodontal in the form of generalized periodontitis are observed [3, 7, 8,10].

Helicobacter pylori is commonly found in these patients' toothpastes. In this case, the oral cavity becomes a constant reservoir of infection of the esophagus and the stomach. Therefore, it is so important in patients with generalized periodontitis in the presence of concomitant pathology from the gastrointestinal tract to choose the optimal method of antimicrobial therapy [1, 2, 9].

In the available literature, we did not find treatment regimens for the HP-associated pathology periodontal disease.

Objective: To investigate the peculiarities of dystrophic and inflammatory periodontal diseases and oral mucosa in patients with gastric ulcer and duodenal ulcer, choose a rational treatment regimen, assess its effectiveness.

Materials and Methods:

We carried out a dental examination of 24 patients with peptic ulcer in the stomach and duodenum. Among them are 14 women and 10 men aged 25-50. In addition to the clinical methods of the study, the index assessment of periodontal disease (periodontal index (PI) Russel, (1986), and the complex periodontal index (KPI) P.A. Leus (1988)) was used. The state of oral hygiene was assessed using the Green Hermetic Green-Vermillion (1964).

By age and severity of the disease, patients were divided into control (6 persons) and basic (14 persons) groups, were identical with each other.

The medical complex of patients in the control group included: sanitation of teeth, professional and individual hygiene of the oral cavity, appointment according to antimicrobial protocol (hivalex, chlorhexidine solution), anti-inflammatory (miramine ointment), immunomodulator (imudon) agents. The control group with the above listed medical complex was 6 people. In the main group of patients from 14 people, along with commonly used appointments, the method of photo-activated disinfection of zinc-sensitive pockets was used with the use of the Foto San lamp with the catalyst for photochemical reaction with toluidine blue. The latter under the action of light red spectrum 625-635nm. secretes oxygen that dissociate with the formation of oxygen ions and radicals. The ions of oxygen lead to the death of 99.9% of the pathogenic microflora of zinc-like pockets, including *Helicobacter pylori*. There were two sessions within 10 days.

Results and discussion. We conducted an analysis of the nearest (up to 2 weeks) results of the dental examination of patients with peptic ulcer and duodenal ulcer. From the oral mucosa, they experienced subjective feelings of paresthesia, itching, salivation and taste sensation. The epithelium of the tongue was desquamated, the mushroom nipples enlarged. There was swelling with the imprints of the teeth on the lateral surfaces of the tongue. On the mucous membrane of the cheeks and lower lip in 2 patients there were aphthoses, in the corners of the lips, an unpleasant smell from the oral cavity.

It was found that in patients with a high rate of helicobacterial infection in the antrum of the stomach, more severe inflammatory and dystrophic changes in periodontia were observed.

The objective examination revealed bleeding of the gums in 1-2 points for Muhlemann, S. Son (1971), the presence of tooth-spray pockets with a depth of 3-6 mm, the placement of soft and hard layers, and the movement of teeth I-II. byEntin The index estimation of the hygienic condition and periodontal tissues in the patients of the main and control groups before and after treatment in the nearest terms of observation are presented in Table 1.

The analysis of orthopantomograms indicated the presence of degeneration of the cortical plate of the alveolar appendix, resorption of intervertebral barriers at 1/3 -1/2 of their height, osteoporosis of the spongiform bone, the presence of bone pockets.

Patients received hygienic recommendations on the use of toothpastes, rinse aid, interdental sutures and brushes. Dietary recommendations corresponded to the diet of Pevsner for gastroenterologists and food, which contributes to self-cleaning of teeth.

Reduction of microbial invasion, optimization of trophic tissues of the oral cavity contributed to the improvement of the general condition of the patients. They reduced the pain symptom, there was a tendency to normalize the condition of the mucous membrane of the oral cavity, significantly improved the condition of periodontal tissues in terms of reducing edema, bleeding gums, movement of teeth. In the main monitoring group, compared with control group, 2.4 + 0.02 days, it was possible to reduce the treatment period and achieve stabilization of the pathological process in 78% of cases, compared with 61% of the control group.

Table 1. Index assessment of the state of periodontal tissues and hygienic well-being in patients with the main and control groups before and after treatment in the immediate time of observation.

Indices Group	PI Russel		KPI Leus P.		OHI-S Green-Vermillion	
	Beforetreatment	Closestresults	Beforetreatment	Closestresults	Beforetreatment	Closestresults
Basic	1,2±0,17	0,02±0,03	1,8±0,32	0,1±0,02	1,1±0,61	0,3±0,15
Checking	1,3±0,4	1,0±0,10	1,9±0,31	1,1±0,02	1,2±0,51	0,9±0,21
	p>0,1		p>0,1		p>0,1	

Conclusions. The first experience of using the method of photoactive disinfection in the complex treatment of periodontal inflammatory diseases in patients with *Helicobacter pylori* - associated stomach ulcer and duodenal ulcer testifies to the effectiveness

of the technique and the promising use of it. It can be recommended for introduction into practical periodontology.

REFERENCES

- Lin P. Der bakterizideeffektes lasers // Journal Dental Res. 1996. — Vol. 34.-P. 44-49.
- Lee Ch., Ragadio J., Fried D. Influence of wavelength and pulse duration on peripheral thermal and mechanical damage to dentin and alveolar bone during IR laser ablation // SPIE. 2000. - Vol. 3910. - P.193-203.
- Уразова Р.З. Стан слизової оболонки порожнини рота і тканин пародонту у дітей з гастродуоденальною патологією, асоційованою з *HelicobacterPylori*.// Стоматологія.-2001.- №1.-с.20-22.
- Поліканова Е.Н. Клініко-лабораторне дослідження м'яких тканин порожнини рота і твердих тканин зубів у пацієнтів, які страждають гастроезофагеальною рефлюксною хворобою. // Автореф. дис. на здобуття звання к.мед.н.- Москва 2005.-21с.
- Мазур И.П., Новошицький В.С. Вітамін D: метаболізм, функції та важливості для організму людини. Роль у патогенезі генералізованого пародонтиту. Частина 1. // Сучасна стоматологія № 1 (70). – «Аврора-принт». – м. Київ. – 2014. – С.40-44.
- Гударьян А.А., Кузьяк Н.Б., Дроник И.И. Клинико-лабораторная эффективность системной энзимотерапии у больных хроническим генерализованным пародонтитом, осложненным гнойными очагами в мягких тканях пародонта.//Медицинські перспективи. – 2017. – Т. 22. – №. 2.
- Ткаченко І. М. Особливості комплексного лікування хворих на хронічний генералізований пародонтит II та III ступеню тяжкості із застосуванням препарату OralBlue //Вісник проблем біології і медицини. – 2017. – №. 2. – С. 386-391.
- Бойчук-Товста О. Г., Рожко М. М. Ефективність застосування лікувально-профілактичного комплексу сорбіфердурулес та вітрумпренатал форте у хворих на генералізований пародонтит вагітних жінок із залізодефіцитною анемією. // Вісник Вінницького національного медичного університету. – 2017. – №. 21, № 1 (2). – С. 289-292.
- Логінов А.Ф. «Маастрихт-3» - сучасна тактика діагностики і лікування інфекції *HelicobacterPylori* // Фарматека. 2006. - № 12.-С. 46 ^ 8.
- Колесник Т.В., Денга Э.М. Влияние комплексной терапии на биофизические параметры при лечении хронического генерализованного катарального гингивита. // Сучасна стоматологія № 1 (70). – «Аврора-принт». – м. Київ. – 2014. – С.28-31.