

## Usage of Cerasorbe in Complex Treatment of Chronic Periodontitis

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### ABSTRACT

Periodontology is the most important part of practical and theoretical dentistry. Between periodontal diseases inflammatory processes are popular without somatic nosology. An adequate and effective treatment of these diseases is possible with improved diagnostical search. In this case the more valuable one is the X-ray determination which shows the condition of the bone tissue. After the valuable treatment the radiographs are changed, especially - radiographs of remote results. The bioactive osteoplastic composition-Cerasorbee at a surgical stage of combined treatment of chronic generalized periodontitis was examined. The results in the control and study groups prove, that Cerasorbee allows to reduce time of treatment, to achieve remission of disease. From 127 patients with chronic generalized periodontitis 65 of them undertook microplasmatic scalpel-irradiator in complex treatment.

**KEYWORDS:** *chronic generalized periodontitis, plasma therapy, Cerasorbee, osteoplastic, bioactive materials, surgical treatment, reparative regeneration*

**A** complete cure of periodontitis is the central problem in stomatological practice and in medicine generally.

The cure of periodontitis depends on many factors, for example on the virulence of microbes, a general position of the body and on the tactics of cure.

During the cure of periodontitis together with traditional methods, we first used a complex cure, particularly after the plasmic therapy course we used osteoplastic material Cerasorbee for ontogenesis stimulation.

Our aim during the cure of chronic periodontitis was to create the stimulating osteogenezic facilities and their use in clinic.

The second component of our experiment is the plasmatrone.

Plasma - it is the high temperatured, partial ionisited gas. It includes whole spectrum of solar electromagnetic radiation. We use low temperatured plasma that is produced in semicircle unit during discharge in mikroplasmatrones where the inert gas (for example - Argon) is used as a plasma creating gas. Plasmatic area is high energetic and it is mechanical transferor of the heat.

From the advantages of plasmic therapy the most important are: It regulates microcircuiation; it stimulates reparative regeneration; it increases the cells, which are resistente to pathologic agents; by the action of plasmic

therapy, the time of treatment is shortened; reducing the using of antibacterial and other inflammation preparations; the days of illness are reduced too.

### MATERIALS AND METHODS

Effectiveness and success of complex treatment was shown on 127 persons. We treated patients in the department of Maxillo-facial Surgery of 4<sup>th</sup> Tbilisi hospitals and in dental clinic of Institute of Dentistry at the Georgian Academy of Physical Culture and Sport. The patients were divided into two groups: first group - control group n=62; Second - basic group n=65 patients.

The traditional treatment course was holding to patients of control group. This course includes movement of gingival plaque, curretment of periodontal recesses, medication of periodontal tissues with antiseptic solutions. After these preparations, periodontal tissues submitted to influence of the Heparin-ointment and the Trichopol, also - parodontal bounds. In the case was introduces antibiotic-therapy.

To the second-group patients was holding a new method, which includes osteoplastic material Cerasorbe. Before and after treatment was caring out radiographical search - to patients of both groups. Also, there was holding the clinical examination, the results of this search is shown in Tab.1 and Tab.2.

On 24 month postoperation radiographs was shown bone regeneration in 59,6% of the first group and 87,6% of the basic-group patients.

The time of examination	HI		PI		The Depth of Periodontal Recesses (mm)	
	Basic group	Control group	Basic group	Control group	Basic group	Control group
Before the treatment	3,43±0,003	3,43±0,005	2,27±0,101	2,17±0,003	4,48±0,003	4,91±0,003
On 6 month postoperative examination	1,13±0,003	1,16±0,003	1,86±0,002	1,89±0,005	1,46±0,003	2,27±0,003
On 12 month postoperative examination	1,15±0,002	1,71±0,002	1,25±0,003	1,63±0,003	1,32±0,003	2,97±0,003
On 24 month postoperative examination	1,23±0,003	1,24±0,003	1,37±0,004	1,97±0,004	1,93±0,003	3,33±0,003

**Tab.1** The clinical index of dynamics of Periodontitis of the I basic and III control group of patients (medium condition).

The time of examination	HI		PI		The Depth of Periodontal Recesses (mm)	
	basic group	control group	basic group	control group	basic group	control group
Before the treatment	3,72±0,004	3,68±0,003	5,26±0,003	5,27±0,004	5,17±0,003	5,16±0,002
On 6 month postoperative examination	1,21±0,005	1,11±0,003	2,83±0,003	3,15±0,003	1,68±0,002	2,28±0,003
On 12 month postoperative examination	1,13±0,004	1,16±0,002	2,41±0,003	2,76±0,003	1,44±0,004	2,96±0,002
On 24 month postoperative examination	1,24±0,003	1,27±0,002	2,47±0,003	3,51±0,004	1,98±0,003	3,34±0,003

**Tab.2** The clinical index of dynamics of Periodontitis of the II basic and III control group of patients (grave condition)

## RESULTS AND DISCUSSION

From the results of complex usage of osteoplastic material cerasorbee and microplasmatic scalpel-irradiator is shown successful treatment of fulminant periodontitis. The same conclusions were obtained from post-operative patients examination (Tab.1, Tab.2).

We have obtained good results by using cerasorbe in experiment and during complex treatment. Cerasorbe stimulated reparative osteogenesis and can be recommended for wide using in the clinical practice.

The therapy has shown positive result. So, the new method of treatment chronic generalized periodontitis may prove to be more practical in clinical dentistry.

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## Применение керасорба в комплексном лечении хронического пародонтита

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### РЕЗЮМЕ

Целью настоящей работы являлось повышение эффективности лечения хронического пародонтита путём создания нового подхода для стимуляции остеогенеза. В комплекс лечебных мероприятий, кроме традиционного метода, включали хирургическое вмешательство с применением биоактивного костнопластического материала Керасорба и одновременно назначали плазменную терапию. Пациенты были подразделены на две группы. Из них 65 (основная группа) больным были проведены хирургические операции с применением Керасорба и одновременно проводили плазменную терапию. Остальных 62 больных (контрольная группа) лечили традиционным методом. Больным основной группы под инфльтрационной анестезией удаляли налёт, над - и поддесневой зубной камень; серповидным скальпелем производили дезэпителизацию десневого края. С помощью финир и полир освежали цемент корня. Пародонтальные карманы промывали растворами антисептиков. Обтурирование пародонтальных карманов производили Керасорбом. На десневой край накладывали защитную повязку. Предложенный нами новый препарат Керасорб можно назначить всем пациентам. Препарат обладает противовоспалительными и остеопластическими свойствами, исходя из чего комплексное применение Керасорба и плазменного потока сокращает сроки лечения ХГП.

**Ключевые слова:** пародонтит, плазменная терапия, Керасорб, остеопластический, биоактивные материалы, репаративная регенерация