

COLLAGEN MATERIAL «COLLOST» IN DENTAL SURGERY

I. O. POHODENKO-CHUDAKOVA*, A.A. RACHKOV

BELARUSIAN STATE MEDICAL UNIVERSITY

*E-MAIL: IP-C@YANDEX.RU

[*ENGINEERING OF BIOMATERIALS 138 (2016) 12*]

Introduction

Rehabilitation of patients with partial and complete secondary edentia runs with the participation of dentists of different profiles, assumes full satisfaction of both the patient and the doctor [1]. At the present stage it is not the last requirement of the patient's treatment time is. Tooth extraction is the most common surgical intervention dental surgeons carry out. Dental alveole is replaced by mineralized tissue up to 80% in four weeks after tooth extraction [2]. It is the amount of time patient usually wait after last surgery and then goes to prosthetic dentist.

Aim of the study. Determination the feasibility of using the collagen material in the surgical phase of the prosthetic treatment with the aim of shortening the duration of treatment by the example of the material «Collost».

Materials and Methods

20 patients participated in the study, aimed at teeth extraction by prosthetic-dentist in connection with chronic apical periodontitis (K.04.5). All patients were male, aged 45-60 years (average age 52.4) with identical values of teeth indices. All patients underwent a professional oral hygiene 7-10 days prior to surgery. Anesthesia was performed with 2% Lidocain. Each patient was removed for 2 teeth in identical segments. One tooth alveole was filled with "Collost powder" and covered with «Collost membrane» (study group, 20 alveoles). The second one was healing under the blood clot (check group, 20 alveoles). Re-examenations carried out on 7, 14 and 28 days.

Results and Discussion

In check group healing process was happening more slowly than in study group. In study group all tooth alveolas were completely healed after 14 days (100%). Those segments of bone had no contraindications for starting prosthetic treatment. In check group there were only 10 (50%) alveolas healed. Concerning complaints there wasn't any in the study group. In the check group about 50% of patients had minor pain complaints.

Osteoplastic materials usually mentioned in literature when speaking about dental implantation and periodontal treatment [3, 4]. There are reports about the possibility of accelerating the regeneration of bone tissue. From our point of view, of great interest is using of collagen osteoplastic materials as a means of shortening the surgical phase of edentia treatment.

Conclusions

Using of «Collost» material create favorable conditions for tissue regeneration after tooth extraction. And prosthetic treatment could be started about 14 days earlier.

References

- [1] Rosenstiel S. F., Land M. F., Fujimoto U. Orthopedic treatment removable prosthetics, M.: Reed Elsevier: 940, 2010.
- [2] Afanas'ev V. V. et al. Surgical stomatology: tutorial, M.: GEOTAR-Media: 880, 2011.
- [3] Mikhailovsky A. A. et al. Clinical and radiological features of tissue regeneration after the augmentation of the extraction with various osteoplastic materials and membranes, Dentistry: 4, 37-40, 2014.
- [4] Solovyov A. Local application of biokompozit-gel «Collost» with antibacterial drugs in complex treatment of chronic periodontitis, Periodontics: 3 (32), 39-45, 2004.