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**RADIOGRAPHIC CHARACTERISTICS THE EFFECTIVENESS OF
TREATMENT CAT WITH PURULENT OSTEOMYELITIS**

Reviewer - Candidate of Veterinary Science, Associate Peredera R.V.

The data of X-ray after the application of granular implants Biomin-hTIS of bone defects. Found that the use of these implants leads to activation of reparative osteogenesis and play anatomic shape and bone structure. Radiologically detected and describes the main tissue changes characteristic of osteomyelitis. It is shown that the X-ray study allows to diagnose osteomyelitis at an early stage and be an effective treatment.

Keywords: *osteomyelitis, radiography, osteoplasty, cats.*

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Statement of the problem. Treatment of osteomyelitis in cats remains a problem Veterinary Surgery. In our opinion, this is mainly due to chronic or latent disease and the difficulty of diagnosis and treatment.

Analysis of recent studies and publications which discuss this issue. It is generally complex therapy of patients with osteomyelitis, which involves radical surgical rehabilitation of purulent-necrotic foci with carrying out reconstructive operations on the background of antibacterial therapy with correction of the main indicators of homeostasis and immune status.

The current stage of development of veterinary reconstructive surgery characterized by an intensive search for new drugs. Recently, much attention is paid to materials that are serving as the interim guiding framework for regeneration, gradually replaced by the body's own tissues.

Appropriate for plastic bone defects is the use of inorganic component of bone - hydroxyapatite. Its advantage over other implants is high biocompatibility and ability to dissolve (at different rates, depending on the size of crystals and features of synthesis). The literature describes many different implants based on hydroxyapatite, which has a positive impact on reparative regeneration of bone [1, 2, 4-6].

Aims and objectives of research - Radiological evaluation of reparative processes in the bone tissue in the case of granular implant Biomin-hTIS for complex treatment of purulent osteomyelitis cats.

Materials and methods research. In the 21st cat simulated experimental purulent osteomyelitis, bone shoulder, forearm and lower jaw.

Animals held necrosectomy and plastic bone cavity. To do this, use granular implant Biomin-hTIS (hydroxyapatite + β -tricalcium phosphate doped with silver). Biomin (Centre for Scientific and Technical Services "Rapid", Ukraine) - Ceramic hydroxyapatite (HAP) - a chemical analogue of mammalian bone mineral substances. Biomin included in the State register of medical devices approved for use in Ukraine, the number 9438/2010 (Ministry of Health of Ukraine of 25.06.2010, № 314).

For the treatment of of purulent osteomyelitis we conducted preoperative preparation through combined anesthesia and fixation in the supine position, dorsal or lateral, depending on the localization of the pathological process. The affected area was prepared to operative interference with the requirements of asepsis and antisepsis. Then perform baring bone longitudinal incision of soft tissue and periosteum, detachment of thickened periosteum and expansion sequestrum box along the fistula. Curettage necrotic areas performed using a portable device BUS-02 with a set of bone cutters.

After that dried bone cavity by tight tamponade sterile gauze, antiseptic watered and filled with granular implants with hydroxyapatite ceramic Biomin-hTIS. Next conducted an audit of the soft tissue and the wound closed nodal seams. The surface wound was treated with antiseptic spray.

Radiographic studies showed that ten days after bone grafting implants osteotropic series "Biomin" rather densely filled defect and had sharp contours

Within 20 days after implantation implants into the bone cavity recorded pronounced signs of positive dynamics in completing the destruction of calcified cell content and its merger with the surrounding bone tissue, periosteum periostitis and sclerosis, calcification of soft tissues in the region of the pathological process. Implants lost clarity and blended with the surrounding bone tissue, in its density they approached the spongy bone. There was a marked endosteal reaction, periosteal layers with signs of calcification.

After 30 days there was complete filling defects spongy bone tissue, the contours of the defect and the implant was unclear.

Continued positive trend observed on radiographs four months after starting treatment. Defect filled with bone tissue, recorded complete recovery cortical layer of bone.

In a series of radiographs of mandibular branches in the region of the roots of V-VI teeth we also incorporated pronounced positive dynamics treatment of experimental osteomyelitis implant series "Biomin".

Within 20 days after the introduction of the implant in the center of the pathological process noted calcified bone cavity filling content - beyond the defect became blurred and merged with the surrounding tissue.

After two months after treatment the defect filled newly formed osteal tissue . Five months later recorded the complete restoration of mandibular bone .

Conclusion. According to X-ray studies, the use of implants osteotropic series "Biomin" for plastic bone defects provides activation of reparative osteogenesis and play anatomic shape and bone structure. Therefore, the use of this material is appropriate component of complex treatment of osteomyelitis cats.

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