OSTEOGENESIS STIMULATOR

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The osteogenesis stimulator allograft for surgical stomatology has been developed and used in the Russian Eye and Plastic Surgery Centre. Powder-like and lamellar forms of this graft are being batch produced. The powder-like form is a fine-dispersive osseous powder with the particles of 0,5mm or 1,0mm in size packed in a dry state in vials 10ml in capacity. The mass of the substance in a vial is 1gr.

The given form is designated to fill up the osseous cavities of various genesis and is used for surgical treatment of cysts of jaws, osseous recesses in parodontitis and for raising the fundus of the maxillary sinus (sinus-lift surgery) in case of the implantology interventions.

The osseous cavity (cyst, recess) is processed according to the generally accepted methods (fig.1).

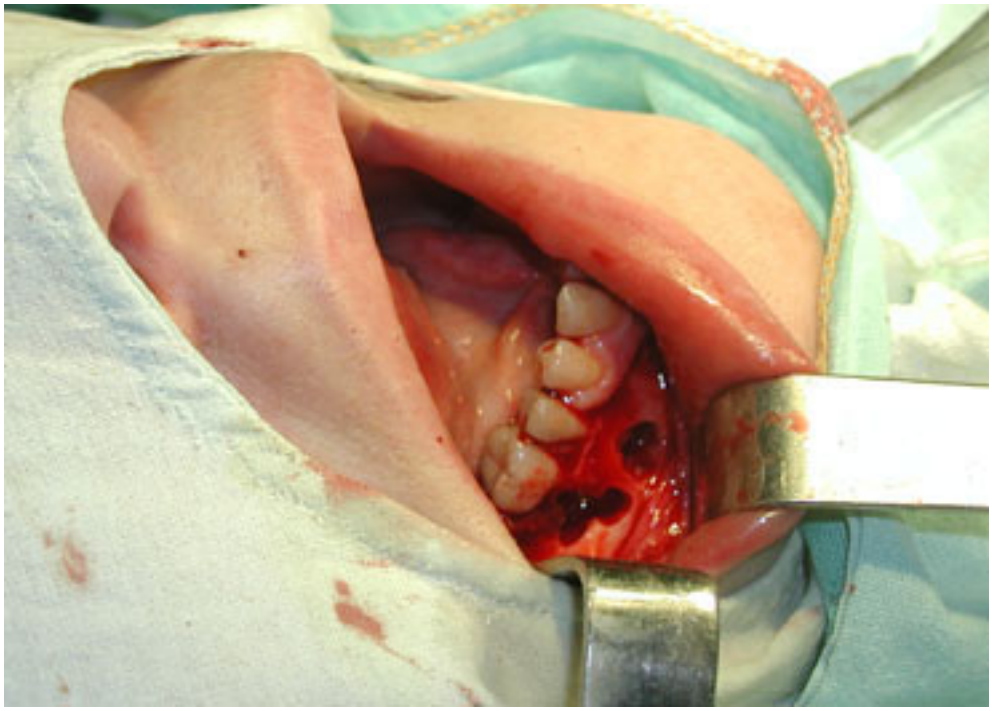

Fig. 1. Alveolar process defect in the region of the 45-th, 46-th teeth.

Then the transplant under sterile conditions is mixed with the blood taken from the patient (blood sampling is performed directly during the intervention) in the amount of 2-3ml to form the plastic mass. The transplant as carried out is put into the cavity preliminary processed by 3% hydrogen peroxide solution and is tightly rammed there by a dry gauze tampon (fig. 2).

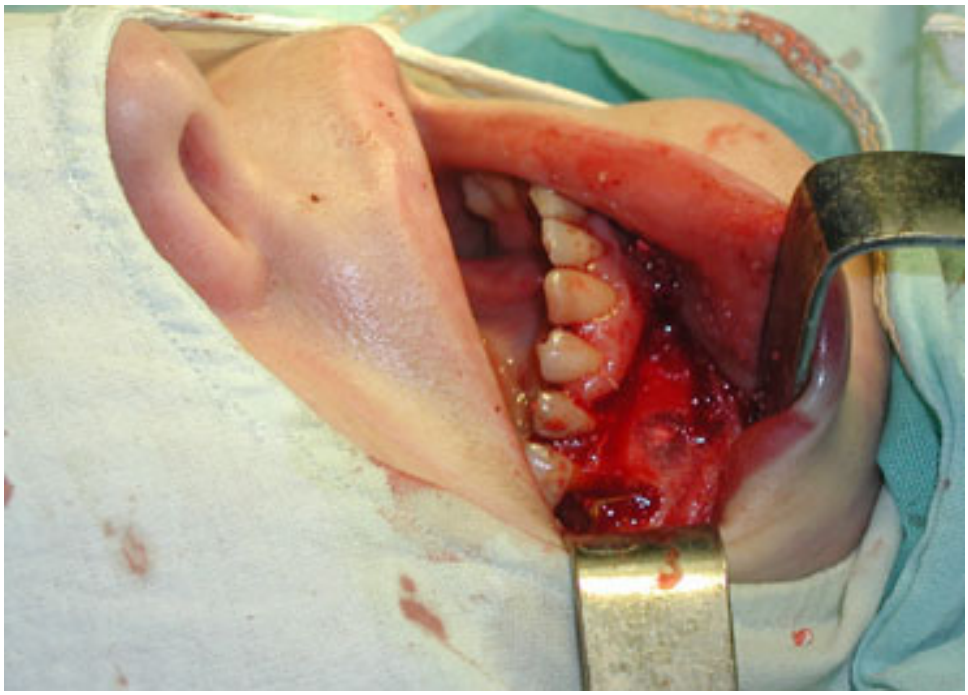

Fig. 2. Osseous defect is covered with the osteogenesis stimulator of the lamellar form.

To prevent the powder-like transplant washing out the osseous defect is covered by the osteogenesis stimulator of the lamellar form (fig. 3).

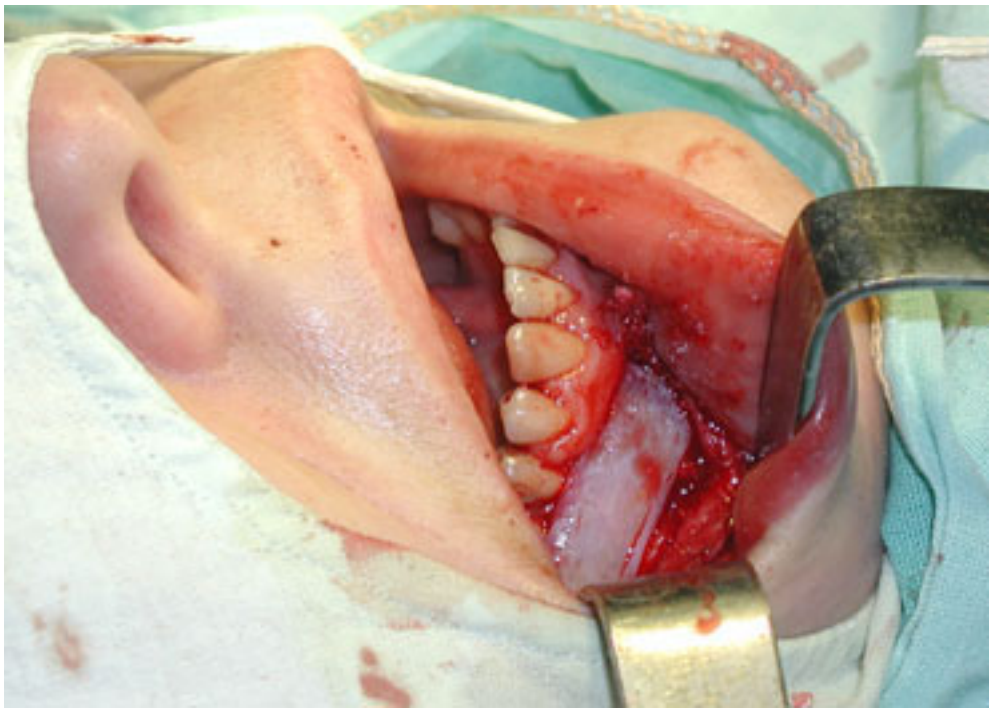

Fig. 3. Osseous defect is covered with the osteogenesis stimulator of the lamellar form.

The lamellar form of the transplant is a plastic, easily modeled osseous plate about 1cm wide and 4-5cm long of about 2gr packed into the vial 50ml in volume filled with a preservative solution. It is used for the chronic parodontitis treatment of all degrees of severity. This type of the transplant is used for the osteoplasty of the alveolar process which allows to achieve remission of the disease up to 6 years including the diabetic parodontopathy. The transplant

performs the osteoinducing and barrier functions, being a membrane for a purposeful tissue regeneration. During a traditional flap surgery the transplant taken from the packing in sterile conditions is placed onto the alveolar process after curettage. The transplant is characterized by the adhesive properties and doesn’t require an additional fixation. The shortcoming of both forms of this transplant is nonradiopacity which makes control difficult.