

The invention relates to medicine, in particular to maxillofacial surgery and prosthetic dentistry and can be used for reconstruction of facial defects and deformities by ectoprosthetics anchored on implants.

Summary of the invention consists in that it is performed the computed tomography of the defect area and the contralateral part if the defect is unilateral for the virtual three-dimensional reconstruction of the osseous part and soft tissue surface, is determined the position of the ectoprostheses in the imaging mode of soft tissues, obtained by symmetrization and translation from the contralateral part in the case of a unilateral defect or by selection of a virtual donor in the case of an extensive defect of the missing anatomical contour, on the basis of craniometric similarity, is determined the topographical place in all stereometric axes of the bed of each surgical implant with simulation of a surgical guide, made on the basis of its virtual model by stereolithography method and which transfers the implant axis, depth and location by positioning the cutters at the clinical implant installation stage. Then the implants are introduced into the bone tissue thickness in the imaging mode of hard tissues. Afterwards is performed the surgical intervention, where the skin is prepared in such a way that the subcutaneous fat and the inferior layer of the dermis are excised in the supraperiosteal plane. It is installed the surgical guide manufactured before the operation in the desired area with attachment to the osseous and/or periosteal irregularities in the previously virtually planned topographic position. It is marked the area for drilling the bone through the installed surgical guide, then is removed the periosteum in the marked area and are drilled the alveoli for the implants and installed, while installing the soft tissue formers. Then is performed the prosthetics after optical scanning of the area of interest with the virtual simulation of ectoprostheses, which is printed using a 3D printer of biocompatible resins for casting, after which silicone is poured with the matrix of the retaining suprastructure elements, then the ectoprostheses is corrected during its final processing and installed.

Claims: 1