

New Technique - A Simple Experimental Model for Study of Cranioplasty

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Key words -

Cranioplasty

Various substances have been used for cranioplasty but none is ideal. A comparative study of various available materials was made and simple experimental model was found very useful and it is briefly presented.

Rats weighing 100-150 grams of both sexes were taken for this study. Intraperitoneal pentothal was used for anaesthesia. Scalp was retracted and an area of parietal skull 5 x 5 mm close to midline was selected for flaps. With a mechanical bone cutter osteoplastic flap was turned laterally avoiding the sagittal sinus (Fig. 1). In control cases skull flap was replaced and in experimental cases skull bone was discarded and suitably sized cranioplasty material was used to cover the skull defect (Fig.2). Periosteum was covered over the graft and scalp was closed in layers. Animals were sacrificed, 4, 8 and 12 weeks later for histopathological study.

Showing osteoplastic flap turned laterally

.Cranioplastic prosthesis in place.

This simple experimental model was found useful for the study of various cranioplasty materials.