Long-term results of hydroxyapatite-fibrin glue implantation in plastic

and reconstructive craniofacial surgery.

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Abstract:

The bone tissue formed in orthotopic or heterotopic implants of granular, porous hydroxyapatite and

fibrin glue was examined several (2 1/4 -8) years after implantation. The results showed distinct

ossification in all cases and the functional situation and external appearance were also satisfactory.

The reconstituted spongy and compact bone underwent a remodelling process similar to that of

normal bone. Most of the hydroxyapatite granules were embedded in the bone tissue; a few were

very close to the fibrillar connective tissue of the intertrabecular spaces and were either covered by

osteoid-like collagenous borders or were in contact with osteoclast-like giant cells. Even if the results

refer only to a few patients, and were obtained from a cross-sectional study, they allow the

conclusion to be reached that the implantation of porous hydroxyapatite and fibrin glue leads to the

formation of long-lasting bone whose hardness is equal to, or greater than, that of normal bone.