Frontobasal and orbital reconstruction following trauma and tumor removal using a compound of bone meal, antibiotic, and fibrin sealant.

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Abstract:

In the treatment of frontobasal cerebrocranial trauma and primary or secondary orbital tumors, definitive surgical intervention in one sitting has proven very successful. The orbital roof, the lateral orbital walls, and the frontal base are reconstructed with a bone meal/fibrin sealant plastic, whereas the orbital rims are revised using available bone fragments refitted using osteosynthetic procedures. Remaining calotte defects are covered alloplastically with Refobacin-Palacos. Bones can be easily remodeled with the bone meal/fibrin sealant plastic. The fibrin sealant holds the shape in regions not subject to mechanical stress, and contributes to an immediate, watertight closure. The addition of an antibiotic achieves effective prophylaxis against infections in the initial phase. The result is an autologous bone which provides a maximum of protection against late infections such as occur in alloplasties and againt ascending infections with meningitis, as observed in unreconstructed bone defects. Since the bone meal is usually obtained during trepanation, bone biopsies of other body regions are unnecessary.