Modified technique for frontal sinus obliteration using calvarial bone

and Tisseel glue.

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Abstract:

BACKGROUND: Frontal sinus obliteration is indicated in trauma and frontal sinus disease. We

present our experience with a modified technique of frontal sinus obliteration.

METHODS: We reviewed the records of 17 patients who underwent frontal sinus obliteration with a

combination of Tisseel fibrin glue (Baxter Healthcare Corporation, Deerfield, IL) and calvarial bone

and describe our technique.

RESULTS: One female and 16 male patients (mean age, 36.6) underwent frontal sinus obliteration

from 2001 to 2005. Traumatic fracture was the most common indication. The patients were followed

up for a median of 15 months. There were no major complications. Postoperatively, one patient

developed a localized frontal wound infection at 3 weeks; this resolved with debridement. At latest

follow-up, all were free from local sinus complications, disease recurrence, headaches, or

intracranial events.

CONCLUSIONS: The combined use of autogenous calvarial bone and Tisseel is suitable for frontal

sinus obliteration. Our technique is associated with low donor site morbidity, avoids a separate

donor surgical site, and has a low complication rate.