Transsinusal frontal approach

http://www.ajns.paans.org/article.php3?id_article=287

The trans-sinusal frontal approach has several advantages. Bone osteotomy and flap replacement are rapid. The time of intervention is reduced, with regard to large bifrontal approaches.

Complications

The complications associated with the trans-sinusal frontal approach are twofold: infection and postoperative Cerebrospinal fluid fistulas. Infectious complications resulting from the penetration of the frontal sinus can be prevented by cranialization of the frontal sinus with total exenterating of the mucous membranes, and obturation of the frontonasal ducts isolating the cranial cavity from the paranasal sinuses; and watertight dural closure with a periosteum graft, reinforced by a free periosteum graft introduced on the dural defect.

The dural closure avoids Cerebrospinal fluid leaks. When the dura mater cannot be closed at the skull base, insertion of several periosteum fragments between the dural and the bone avoids the development of a fistula trajectory and permits spontaneous sealing of leaks. Furthermore, suppression of the deadspace by periosteum is factor acting against the development of infections. Closure and reconstruction could not be achieved with a transciliary subfrontal craniotomy 1).