

Trans-sphenoidal treatment of postsurgical cerebrospinal fluid fistula: CT-guided closure.

Authors: Floris R, Salvatore C, Fraioli B, Pastore FS, Vagnozzi R, Simonetti G

Publication Date: 1998

Abstract:

Cerebrospinal fluid (CSF) leakage after trans-sphenoidal surgery is a troublesome complication with a risk of meningitis and pneumocephalus. We suggest CT-guided intrasphenoidal injection of fibrin sealant through a 12-gauge needle as a simple alternative to surgical management of CSF fistulae. We treated eight patients, operated via the trans-sphenoidal route (five pituitary adenomas, three craniopharyngiomas), for a postoperative CSF leak by CT-guided intrasphenoidal injection of fibrin sealant alone in three cases and fibrin sealant and autologous blood in 5. CT was obtained 10 days after the procedure in all cases. In four patients, the CSF leak was closed successfully at the first attempt. The procedure was repeated on the four remaining patients because only a reduction in leakage was obtained at the first attempt. This procedure preserves olfaction and avoids the risk of frontal lobe damage. It could therefore represent the treatment of choice in many cases of anterior cranial fossa postsurgical CSF leaks.