Outcome of Evacuation of Chronic Subdural Hematoma With and Without Inner Membranectomy: A Comparative Study

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Summary

Chronic subdural hematoma (CSDH) in the elderly population is a common disease encountered in neurosurgical practice. Thorough neurological examination and proper investigations including CT brain and sometimes MRI brain are essential. CT brain is mandatory to detect the site, type and size of the hematoma and the resulting midline shift beside exclusion of any underlying pathology. MRI brain is more accurate in detection of the multicompartmental nature of the hematoma and visualization of membranes and septations.

Surgical management is usually done either by twist-drill craniostomy (TDC), burr-hole craniostomy (BHC), with or without inner membranectomy, or by craniotomy.

This study was conducted upon 20 patients in the department of neurosurgery in Fayoum university hospitals to compare the outcome of the inner membranectomy technique after burr-hole craniostomy versus traditional burr-hole craniostomy without membranectomy in terms of clinical improvement in GCS, motor power, gait and speech abnormalities, the radiological findings as re-expansion of the brain and decrease in midline shift, the post-operative complications which are commonly: epileptic seizures, pneumocephalus and recurrence. These parameters were compared on the 1st post-operative day, the 3rd day and after one month.

Excision of a part of the inner membrane after burr-hole craniostomy was found to have statistically significant difference in subdural space thickness and midline shift in follow-up CT after one month. Otherwise, both techniques proved to have similar outcome regarding clinical improvement and incidence of complications.