

Chronic subdural hematoma: surgical treatment, risk of recurrence and outcome in 593 cases.

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Introduction and Objective

Chronic subdural hematoma (CSDH) is a common neurosurgical pathology with a substantial recurrence rate. Predictors of recurrence reported in the literature are bilateral localization, diabetes mellitus, preoperative seizure, anticoagulant therapy, extended preoperative corticosteroid administration and some radiologic findings such as separated hematomas, preoperative width of hematoma and postoperative midline shifting.

We retrospectively analysed 593 consecutive surgical cases of CSDH operated on in our Department to detect factors that can influence the outcome and the risk of recurrence.

Materials and methods

A total of 593 consecutive patients submitted to surgery for CSDH between January 2005 and June 2011 (683 procedures) were reviewed. One hundred and sixty three patients showed bilateral CSDH. All patients underwent surgical procedures, including trepanation of a single burr hole or craniotomy, with saline irrigation and closed drainage system under local or general anaesthesia. We analysed the relationship between recurrence of CSDH and several factors such as: age of patients, surgical technique (burr hole or craniotomy), type of anaesthesia (general or local), mono- or bilateral CSDH, antiplatelet or anticoagulant therapy and other concomitant diseases (hypertension, diabetes mellitus, cerebrovascular disease, heart disease, atrial fibrillation).

Results

Perioperative mortality was 3,5% and morbidity at discharge (residual neurological deficit) was 11,6%. A total of 71 CSDH recurred (10,39% of procedures). The CSDH recurrence rate was 7,3% in patients affected by hypertension, 1,5% in diabetes mellitus, 2,2% in cerebrovascular disease, 2% in heart disease, 2,2% in atrial fibrillation, 6,4% in previous trauma, 2,2% and 3,9% in respectively antiplatelet and anticoagulant therapy. Statistical analysis was performed and data were compared to literature.

Conclusions

Multiple logistic regression found that the recurrence rate was higher in patients older than 70 years. Neither univariate nor multivariate analysis could demonstrate a significant association between any other factor taken into account in the present study and the recurrence of CSDH.