Acute subdural hematoma treatment

Management steps include anticoagulation reversal, seizure prevention, blood pressure management, and indications for intracranial pressure monitoring.

Direct surgical management, includes open craniotomy, twist drill, and burr hole drainage and the usage of subdural drainage systems [1].

Possible implications of medical treatment in subdural hematomas in the developing country [2].

Initial management of patients with concern for altered mental status with or without trauma starts with Emergency Neurological Life Support (ENLS) guidelines, with a focus on maintaining ICP < 22 mmHg, CPP > 60 mmHg, MAP 80-110 mmHg, and PaO2 > 60 mmHg, followed by rapid sequence intubation if necessary, and expedited acquisition of imaging to identify a space-occupying lesion. Patients are administered antiseizure medications, and their antiplatelet medications or anticoagulation may be reversed if neurosurgical interventions are anticipated, or until hemorrhage is stabilized on imaging. Medical SDH care focuses on (a) management of intracranial hypertension; (b) maintenance of adequate cerebral perfusion; © seizure prevention and treatment; (d) maintenance of normothermia, eucarbia, euglycemia, and euvolemia; and (e) early initiation of enteral feeding, mobilization, and physical therapy. Post-operatively, SDH patients require ICU level care and are co-managed by neurointensivists with expertise in treating increased intracranial pressure, seizures, and status epilepticus, as well as medical complications of critical illness [3].

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van Essen et al determined whether surgery reduces mortality in traumatic ASDH compared with initial conservative treatment. A systematic search was performed in the databases IndexCAT, PubMed, Embase, Web of Science, Cochrane library, CENTRAL, Academic Search Premier, Google Scholar, ScienceDirect, and CINAHL for studies investigating ASDH treated conservatively and surgically, without restriction to publication date, describing the mortality. Cohort studies or trials with at least five patients with ASDH, clearly describing surgical, conservative treatment, or both, with the mortality at discharge, reported in English or Dutch, were eligible. The search yielded 2025 reports of which 282 were considered for full-text review. After the risk of bias assessment, we included 102 studies comprising 12,287 patients. The data were synthesized using a meta-analysis of absolute risks; this was conducted in random-effects models, with dramatic effect estimation in subgroups. Overall mortality in surgically treated ASDH is 48% (95% confidence interval [CI] 44-53%). Mortality after surgery for comatose patients (Glasgow Coma Scale ≤8) is 41% (95% CI 31-51%) in contemporary series (after 2000). Mortality after surgery for non-comatose ASDH is 12% (95% CI 4-23%). Conservative treatment is associated with an overall mortality of 35% (95% CI 22-48%) and 81% (95% CI 56-98%) when restricted to comatose patients. The absolute risk reduction is 40% (95% CI 35-45%), with a number needed to treat of 2.5 (95% CI 2.2-2.9) to prevent one death in comatose ASDH. Thus, surgery is effective to reduce mortality among comatose patients with ASDH. The magnitude of the effect is large, although the effect size may not be sufficient to overcome any bias [4]

Conservative

Acute subdural hematoma conservative treatment.

Acute subdural hematoma surgery

Acute subdural hematoma surgery.

1)
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