

Posttraumatic cerebral venous sinus thrombosis: retrospective evaluation of risk factors, management and complications [Abstract]

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Methods: All unilateral DC patients who received both CP and VPS in our center between 2010 and May 2022 were divided in two groups: CP with simultaneous vs. staged VPS implantation. Clinical data was retrospectively acquired from patients' records.

Results: 30 patients with a mean age of 53 years (95CI 47-58) were analyzed. CP was performed on average 84 days (95CI 58-111) after DC with a mean follow-up of 33.6 months (95CI 19.2-48.1). In 14 patients (47%), a VPS was implanted simultaneously with CP, while this was performed in a delayed fashion in 16 patients (53%).

No association with the type of brain injury, patient age, pre-morbidity, implant type, laterality, mRS was found. did not differ. Mean estimated patient OS was comparable: 15.7 years (95CI 9.3-22.0) in the simultaneously implanted VPS group vs. 14.6 years (95CI 9.1-20.1) after staged surgery. Equally high number of revisions during the hospital stay were necessary after one- and two-step procedures: CP-associated in correspondingly 3/14 and 4/16 cases, as well as VPS-associated in correspondingly 4/14 and 5/16 cases. There were no differences in late postoperative complication rates. If VPS was implanted in the second stage, to reduce 6 months revision rate, it should had been done not later than 26 days after CP (AUC 0.9; sensitivity 1.0, specificity 0.8; p=0.05).

Conclusions: No differences in morbidity and mortality were found between CP with simultaneous vs. staged VPS implantation. If a staged procedures is considered, VPS implantation should be performed not later than 26 days after CP.

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POSTTRAUMATIC CEREBRAL VENOUS SINUS THROMBOSIS: RETROSPECTIVE EVALUATION OF RISK FACTORS, MANAGEMENT AND COMPLICATIONS

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Oral e-Poster Presentations - Booth 2: Trauma A, September 26, 2023, 1:00 PM - 2:30 PM

Background: Up to date, there is no clear consensus on the management of posttraumatic cerebral venous sinus thrombosis (CVST). The challenge to establish a guideline in this disease is complicated by various coexisting injuries. This evaluation aims to identify risk factors, management and associated complications of posttraumatic CVST.

Methods: A retrospective chart review of 341 traumatic brain injury patients admitted to the neurosurgical clinic from 2020 to 2022 was performed. Of those, 13 were diagnosed with posttraumatic CVST. In these patients, trauma mechanism, associated injuries, location of the CVST as well as treatment and possible complications were evaluated.

Results: Mean age was 48 years (range: 23-84), with mainly male patients (n=8; 61.5%). Trauma mechanisms are illustrated in figure 1. Skull fractures, even though not dislocated were diagnosed in 11 patients (84.5%). Only two patients (15.3%) had CVST of the sagittal superior sinus, while most were diagnosed with CVST of the transverse (n=3, 23.0%), the sigmoid (n=4, 30.6%), or both, transverse and sigmoid sinus (n=4, 30.6%). These CVST were highly associated with skull base fractures p=0.02.

Traumatic intracranial hemorrhage was evident in all patients, requiring surgery in half of the cases (Table 1). Half of all cases were treated with thrombolysis prophylaxis only, while the remaining 6 (46.1%) received intravenous heparin being started at day 3 on average (range 1-8), leading to a progressive bleeding with the need for hemicraniectomy in 1 patient (7.6%).

Conclusions: This study addresses the difficulty and inconsistency of the post-traumatic ST treatment. Due to the association with skull base fractures, we advocate performing a CT with contrast agent in a venous phase in these patients

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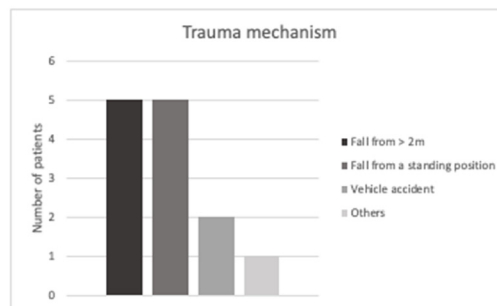


Figure 1: Trauma mechanism of the patients' included.

Patient	Intracranial bleeding	Surgery
1	SAH, CC	-
2	SAH, aSDH	Hemicraniectomy
3	SAH, aSDH, CC	-
4	aSDH, CC	Hemicraniectomy
5	SAH	EVD
6	SAH	-
7	SAH	Hemicraniectomy
8	SAH, aEDH	EVD
9	SAH	-
10	CC	-
11	CC	-
12	SAH, aSDH	EVD
13	CC	EVD

Table 1: Intracranial bleeding pattern and surgery performed
aSDH – acute subdural hematoma, aEDH – acute epidural hematoma, CC – cerebral contusion, EVD – external ventricular drainage, SAH – subarachnoid hemorrhage

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EARLY POSTOPERATIVE EVENTS AFTER EVACUATION OF A CHRONIC SUBDURAL HEMATOMA - A RETROSPECTIVE STUDY OF 1000 CONSECUTIVE PATIENTS FROM A SINGLE NEUROSURGICAL CENTER

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Oral e-Poster Presentations - Booth 2: Trauma A, September 26, 2023, 1:00 PM - 2:30 PM

Background: With an increasing number of chronic subdural hematoma (CSDH) patients, burrhole evacuation of CSDH is the most common neurosurgical procedure in Denmark. This demands for an optimized patient flow. The capacity of the post-anesthesia care unit (PACU) is a well-recognized holdup in the flow of CSDH patients. We aim to record postoperative adverse events (AE) within the first 24 hours after burrhole evacuation of CSDH to identify the optimal time spend in the PACU without jeopardizing patients' safety.

Methods: In this retrospective study between 1st January 2017 and 1st January 2022, we included 1000 consecutive patients ≥18 years with burrhole evacuated CSDH at Rigshospitalet, Denmark. Medical records were examined for AE within the first 24 hours postoperative including time until an AE, and its clinical consequence. AE was defined as worsening of patient status or lack of improvement resulting in further diagnostics or treatment. Data included pre-disposing factors, patient demographics, symptoms onset, Glasgow Coma Scale (GCS), radiological measurements, coagulation and infectious status, perioperative events, drainage time, recurrence, and mortality.

Results: Up until now, 201 patients are included. Of these 30 (15%) experienced an AE. The AE were GCS deterioration (14), new focal deficits (10), no