Chronic subdural hematoma membrane

- Investigation of the frequency of meningothelial hyperplasia and its clinicopathological correlation in patients diagnosed with subdural hematoma
- Effectiveness of subdural evacuating port system (SEPS) and middle meningeal artery embolization (MMAE) for chronic subdural hematomas - a multicenter experience
- Letter to the Editor: The Impact of cSDH membranes on MMA embolization outcomes
- Endoscopic subdural membranectomy for multi-septated chronic subdural hematoma: Finding a safe solution when middle meningeal artery embolization is not feasible
- Meningioma growth beneath the outer membrane of a traumatic chronic subdural hematoma after burr-hole drainage: a case report and literature review
- Membrane presence in chronic subdural hematomas is associated with a reduced rate of resolution following middle meningeal artery embolization
- Incision of the Internal Membrane Under an Endoscope for Advanced Organized Chronic Subdural Hematoma: A Case Report
- Factors Affecting Outcomes Following Mini-Craniotomy Evacuation of Primary Chronic Subdural Hematoma: A Single-Center Retrospective Study

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The International Statistical Classification of Diseases (ICD) classifies subdural hematoma (SDH) as traumatic or non-traumatic. In clinical settings, however, SDH is typically described as either acute or chronic.

The goal of a study was to assess how the ICD Coding Tools captures the clinical terminology and propose an improved classification that would increase the system's usefulness in administrative, statistical and research applications.

Langlois et al. performed a retrospective analysis of patients who presented with an ICD diagnostic code for either traumatic or non-traumatic SDH. A qualitative analysis of patients' charts was performed to identify elements relevant to management and prognosis, following which a meeting between expert investigators was held to elaborate a new classification of SDH. Imaging from all patients was then reviewed and cases were reclassified according to our proposed system.

A total of 277 SDH cases were included. Themes documented in the charts included chronicity, etiology, side, and symptoms. They created a new classification which distinguishes acute SDH (aSDH) from membrane-associated subdural hematoma (mSDH). aSDH were further divided into traumatic aSDH (taSDH) and non-traumatic aSDH (ntaSDH), while mSDH were divided into acute on chronic (a/cSDH), subacute (sSDH) and chronic (cSDH) categories.

The ICD coding system correctly identifies taSDH and ntaSDH. However, it remains non-specific for mSDH. They proposed this new SDH classification system to better capture chronicity and etiology - factors felt to impact management and prognosis [1)]

A chronic subdural hematoma is an old clot of blood on the surface of the brain between dura and arachnoid membranes. These liquefied clots most often occur in patients aged 60 and older with brain atrophy. When the brain shrinks inside the skull over time, minor head trauma can cause tearing of

blood vessels over the brain surface, resulting in a slow accumulation of blood over several days to weeks.

Aim of the study: To evaluate the role of membrane in hematoma evaluation and to correlate its histopathology with clinic-radiological aspects of the condition and overall prognosis of patients.

The study incorporated all cases of chronic SDH admitted to the Neurosurgery department of JLN Hospital and Research Centre, Bhilai, between November 2011 and November 2013. All such cases were analyzed clinically, radiologically like site, size, thickness in computed tomography, the attenuation value, midline shift and histopathological features were recorded.

All cases of chronic subdural haematoma irrespective of age and sex were incorporated into the study.

All cases of acute subdural haematoma and cases of chronic sub dural hematoma which were managed conservatively irrespective of age and sex were excluded from the study.

The most common histopathological type of membrane was the inflammatory membrane (Type II) seen in 42.30% of cases followed by hemorrhagic inflammatory membrane (Type III) seen in 34.62% of cases while scar inflammatory type of membrane (Type IV) was seen in 23.08% of cases. No case with noninflammatory type (Type I) was encountered [2].

1)
Langlois AM, Touchette CJ, Mathieu D, Iorio-Morin C. Classification of subdural hematomas: proposal for a new system improving the ICD Coding Tools. Front Neurol. 2023 Oct 11;14:1244006. doi: 10.3389/fneur.2023.1244006. PMID: 37885484; PMCID: PMC10598644.
2)
Bokka S, Trivedi A. Histopathological study of the outer membrane of the dura mater in chronic sub dural hematoma: Its clinical and radiological correlation. Asian J Neurosurg. 2016 Jan-Mar;11(1):34-8. doi: 10.4103/1793-5482.154979. PMID: 26889276; PMCID: PMC4732239.