

INTRODUCTION

Calcified chronic subdural hematoma (CCSDH) represents a rare disease, accounting for only 0.3-2.7% of all chronic subdural hematomas, which may occur secondarily to trauma, subdural effusion, meningitis, or as a complication of chronic shunting for hydrocephalus. The majority of patients with CCSDH are asymptomatic, although the clinical presentation may be characterized by a slow progression of neurological signs and symptoms.

METHODS

We report two cases of CCSDH; a woman of 38 years old with clinical diagnosis of rhinosinusitis, and a man of 56 years-old presenting with chronic headache, who were submitted to radiological examinations and was evidenced subdural collection calcified. These patients were treated conservatively because they had no neurological changes and no significant symptoms.

RESULTS

Although chronic subdural hematoma (CSH) is a well-known disease entity and common, CSH is quite rare. Calcification can occur unilaterally or bilaterally, in small or large dimensions. However, when calcification is extensive, bilateral and involves the entire hemisphere, this condition is referred to as “armored brain” given the appearance of an encased brain. The clinical presentation of patients with CCSDH is characterized by a slow progression of neurological signs and symptoms. CSH has been observed as the late complication of head injury or new sequel of post meningitis subdural effusion.

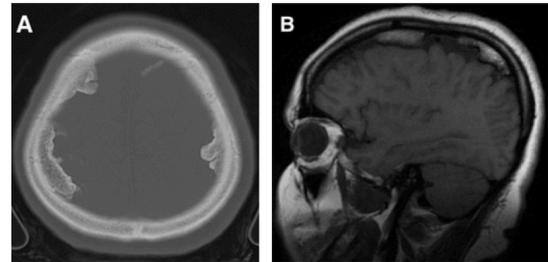


Figure 1: (A) CT scan, hyperdensity next to the skull, showing bilateral subdural chronic calcification; (B) MRI sagittal view of calcification in subdural space.

Pathogenesis of calcification is poorly understood. It is proposed that metabolic and vascular factors may play a role. The hematoma may progress gradually from hyalinization to calcification, and finally ossification through irritation of the tissue. After hemorrhage calcification usually takes six months to many years to develop. An indication of the surgery includes features of raised intracranial pressure, headache, or neurological deterioration, although the therapeutic management of the patients should be determined individually. Surgical treatment of CCSDH is based on some techniques, such as twist drill aspiration, burr hole aspiration or microsurgical dissection.

CONCLUSIONS

CCSDH are rare entities, which are well tolerated due to their indolent nature even though the radiologic findings might be quite impressive and without direct clinical correlation. The therapeutic management of the patients should be determined individually.

REFERENCES

1. Kanu OO, Igwilo AI, Daini O. Armoured brain: a case of bilateral calcified chronic subdural haematoma complicating infantile hydrocephalus. *Romanian Neurosurgery*. 2012;XIX.
2. Von, Rokitansky C. *Handbuch der pathologischen anatomie*. Vol 2. Vienna: Braunmuller und Scidel; 1844.
3. Petraglia AL, Moravan MJ, Jahromi BS. Armored brain: A case report and review of the literature. *Surg Neurol Int*. 2011 Aug;2:120.
4. Park JS, Son EI, Kim DW, Kim SP. Calcified chronic subdural hematoma associated with intracerebral hematoma: Case report. *J Korean Neurosurg Soc*. 2003;34:177-8.