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Case Report

# Spontaneous chronic subdural hematoma of the posterior fossa: A case report

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#### ABSTRACT

Background: Chronic subdural hematoma (CSH) in the posterior fossa is extremely rare and only a few cases have been reported in the literature. We report a case of CSH in the posterior fossa successfully treated with a single burr hole surgery.

Case Description: A 66-year-old woman who underwent anticoagulation therapy and was suffering, in the past 3 weeks from headache, vertigo, and gait ataxia. Screening with magnetic resonance imaging demonstrated infratentorial CSH on the right cerebellar hemisphere. Coagulation was normalized and the hematoma was evacuated through a burr hole irrigation. The symptoms resolved completely within a few days. Postoperative computed tomography showed a normal postoperative appearance and resolution of hematoma. She was discharged 1 week later without any neurological deficits.

Conclusion: CSH in the posterior fossa is an extremely rare condition. Due to the limited number of reports, the optimal treatment is yet unknown. In cases with coagulation disorders, less invasive and early treatment should be considered. More studies are needed to define the best management for this pathology and cases must be individualized according to each patient's particularities.

Keywords: Burr hole irrigation, Chronic subdural hematoma, Posterior fossa

### INTRODUCTION

Chronic subdural hematoma (CSH) in the posterior fossa is extremely rare and only a few cases have been reported in the literature. [1,2] We report a case of CSH in the posterior fossa successfully treated with a single burr hole surgery.

#### CASE REPORT

A 66-year-old woman under anticoagulation therapy after mitral valve replacement surgery was suffering for the past 3 weeks from progressive headache, dizziness, vertigo, vomiting, and gait ataxia. Her symptoms aggravated evolving to deterioration of consciousness, which brought her to emergency department of our service. Magnetic resonance imaging demonstrated infratentorial

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CSH on the right cerebellar hemisphere [Figure 1]. On the following day of admission, coagulation was normalized and the hematoma was evacuated through a burr hole. During the surgery, chocolate-colored fluid gushed out under great pressure. The subdural space was thoroughly rinsed with saline solution also a subdural drain was placed and kept for 24 h after surgery. The symptoms resolved completely within a few days. Postoperative computed tomography (CT) showed a normal postoperative appearance and resolution of the hematoma and the mass effect [Figure 2]. She was discharged 1 week later without any neurological deficits.

#### **DISCUSSION**

The incidence of intracranial CSH is 1-2 cases per 100,000 habitants per year and they predominantly occur in elderly individuals. However, subdural hematomas rarely occur in the posterior fossa. [5,6] CSHs probably represents one of the rarest forms of posterior fossa bleeding. Only 17 cases of spontaneous CSHs of the posterior fossa in adults have been reported in the literature so far.<sup>[5]</sup> The rather low incidence of CSH in the posterior fossa may be explained by the rare occurrence of venous sinus injuries and the low number of bridging veins present in the posterior fossa. Known risk factors are traumatic events, anticoagulation therapy, blood

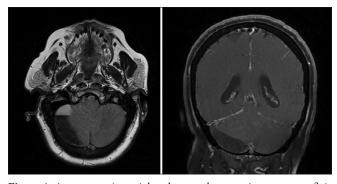


Figure 1: A preoperative axial and coronal magnetic resonance, flair images, showing chronic subdural hematoma in the right cerebellar hemisphere.

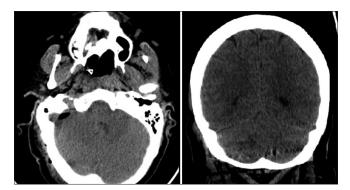


Figure 2: Computed tomography showed a normal postoperative appearance and resolution of hematoma.

clotting disorders, and intracranial hypotension. In some cases, no cause is found.[4] Furthermore, a CSH could be the result of a transformation of an acute one. The predominant manifestations are headaches, vomiting, cerebellar symptoms, and cranial nerve dysfunction.[3] The previous reports have described surgical drainage (craniotomy or trepanation) and conservative therapy for the treatment of CSH. However, since the number of reports is limited, the optimal treatment is unknown. [4] In the present case, considering that the patient was in use of anticoagulant therapy, a less invasive burr hole surgery was indicated to reduce the risk of postoperative bleeding and we had an excellent outcome with complete resolution of symptoms and postoperative CT demonstrating resolution of the pathology.

#### **CONCLUSION**

CSH in the posterior fossa is extremely rare. Since most cases evolve coagulation disorders, less invasive and early treatment should be considered. However, due the limited number of reports, the optimal treatment is yet unknown. Therefore, more studies are needed to define the best management for this pathology and cases must be individualized according to each patient particularities.

## Declaration of patient consent

Patient's consent not required as patient's identity is not disclosed or compromised.

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#### **Conflicts of interest**

There are no conflicts of interest.

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