Case Report

Rare acute idiopathic subdural hematoma: A case report and literature review

Adilson de Oliveira, Wellingson da Silva Paiva, Manoel Jacobsen Teixeira

1Department of Neurosurgery, Hospital das Clínicas da Faculdade de Medicina da USP, São Paulo, Brazil; 2Neurosurgery Service, Clínica Girassol, Luanda, Angola.

E-mail: Adilson de Oliveira - adilsonvalmont@gmail.com; Wellingson da Silva Paiva - wellingsonpaiva@yahoo.com.br; Manoel Jacobsen Teixeira - manoeljacobsen@gmail.com

ABSTRACT

Background: Acute spontaneous subdural hematoma is rare. For patients under 40 years of age, we found only five previous reports. Here, we have presented a sixth case study.

Case Description: A 27-year-old male initially presented with a high-intensity headache without any neurological deficits. The brain computed tomography revealed a left frontoparietal lesion, consistent with an acute epidural hematoma. However, the bone window examination showed no fracture, and at surgery, this lesion proved to be an acute subdural hematoma. Additional studies, including cerebral angiography, brain magnetic resonance imaging, and a complete coagulation work-up, were all negative.

Conclusion: This case report and literature review focused on the rarity of acute idiopathic/spontaneous subdural hematomas.

Keywords: Intracranial hematoma, Neurosurgery, Subdural hematoma, Traumatic brain injury

INTRODUCTION

There are few documented cases of acute spontaneous subdural hematomas (ASSDH) occurring in healthy young men without a history of trauma [Table 1]. Here, we present a 27-year-old male with an ASSDH and reviewed five other cases of idiopathic ASSDH in the patient under 40 years of age.

CASE REPORT

A 27-year-old male presented with a high-intensity headache of 3 h duration. He exhibited no focal neurological deficit or any laboratory/coagulation abnormalities [Table 2]. The brain computed tomography (CT) scan documented a left frontoparietal lesion (e.g., 16 mm side), consistent with an acute epidural hematoma. However, the bone window CT showed no underlying fracture, and at surgery (e.g., a routine craniotomy), the lesion proved to be an acute subdural hematoma [Figure 1]. The postoperative CT confirmed adequate removal of the clot [Figure 2]. Subsequently, the patient's additional studies including cerebral angiography, brain magnetic resonance (MR), and an additional full coagulation work-up all proved negative [Figures 2-5].
de Oliveira, et al.: Rare acute idiopathic subdural hematoma

Figure 1: The preoperative computed tomography (CT) scan showed the left parietal subdural hematoma. Due to its lenticular configuration, this could easily be misinterpreted as an epidural hematoma.

Figure 2: Notably, the bone window CT demonstrated no accompanying skull fracture.

Figure 3: The postoperative computed tomography scan showed complete resection of the hematoma.

Figure 4: Left cerebral angiography was normal.

Figure 5: Postoperative T1-weighted enhanced brain magnetic resonance (MR) imaging. The postoperative brain MR performed with gadolinium diethylenetriaminepentaacetic acid was negative.

DISCUSSION

History of ASSDH

Munro, in 1934, was the first to report an ASSDH; a decade later, Scott reported two more cases.\[9\] In 1971, Talalla and McKissock coined the phrase "acute spontaneous SDH (ASSDH)."\[10,11\]

The previous reports indicated that ASSDH typically occurred in male teenagers and correlated with good outcomes when diagnosed and treated early in the clinical course (e.g., before the onset of a severe neurological deficit).\[2,5,8,13\]

Risk factors for ASSDH

Risk factors for ASSDH included hypertension, vascular malformations, neoplasia (e.g., hematological malignancies causing thrombocytopenia), other solid tumors, dural metastases, hypervitaminosis, coagulopathy/alcoholism, and
bleeding from cerebral artery aneurysms/cortical arteries. In the case presented, the patient had none of these risk factors. Notable, however, was the CT finding of a lenticular clot pathognomonic for an epidural hematoma (e.g., only 8% of subdural hematomas demonstrate this radiological shape), but without a fracture on the bone window CT. At surgery, this proved to be an ASSDH.

CONCLUSION

Spontaneous intracranial hematomas are rare life-threatening lesions that typically present with mild symptoms and less severe neurological findings versus traumatic acute subdural hematomas. In addition to obtaining preoperative noncontrast CT bone and soft-tissue studies, patients postoperatively should undergo brain MR scans, cerebral angiography, and a full coagulation work-up to rule out other etiologies of these rare lesions.

Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms.

Financial support and sponsorship

Nil.

Conflicts of interest

There are no conflicts of interest.

REFERENCES

9. Monsivais D, Choi HA, Kitagawa R, Franch M,

How to cite this article: de Oliveira A, da Silva Paiva W, Teixeira MJ. Rare acute idiopathic subdural hematoma: A case report and literature review. Surg Neurol Int 2020;11:9.