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Case Report

Perioperative Atypical Aspect of A Spontaneous Spinal Subdural Hematoma

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Abstract

Spinal subdural hematoma is not frequent and spontaneous one rare. We report a case of 48-year-old woman who presented a spinal subdural hematoma, revealed by a spinal cord compression syndrome. The patient was operated on with good outcomes.

Introduction

Spinal subdural hematoma is an uncommon cause of spinal cord or cauda equina compression [1]. The most common cause are anticoagulant therapy and blood coagulation dysfunction, followed by complications of spinal surgery or needle puncture. They can also follow some spinal trauma. Few cases of spontaneous spina subdural hematoma were reported [2]. The earlier diagnosis and treatment before irreversible damage are the best treatment protocol.

Case Report

A 48-year-old woman presented a progressive history of backpain and radiating in both legs for one week. The patient was unable to walk. The general examination was normal but neurological examination showed motor weakness on the right and left lower limb. The bilateral Achilles' tendon reflex decreased. There was no bladder or bowel disturbances. Laboratory tests revealed normal coagulation and platelet count. A lumbar MRI showed acute cord compression due to spinal epidural hematoma at L3-S2 level (Figure 1).

The patient underwent emergency surgery. A Laminectomy at L2S1 was performed. There was no tumor, hematoma or other lesion in the epidural space. After dural incision, we discover a cyst with a greenish-white content (Figure 2A), which we have opened; A thick content came out (Figure 2B) and the exploration objectified brownish deposits (Figure 2C). Pathological examination showed a hematoma with hyperplasia fragment of fibrous and inflammatory remodeling marked with gliotic remodeling. There were no obvious abnormal vessels or multinucleated giant cells.

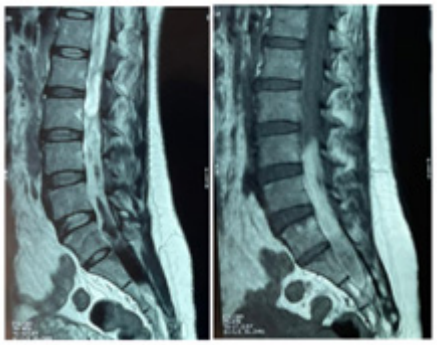

Figure 1: Hyperintense on T1 imaging and hypointense to cord on T2 image.

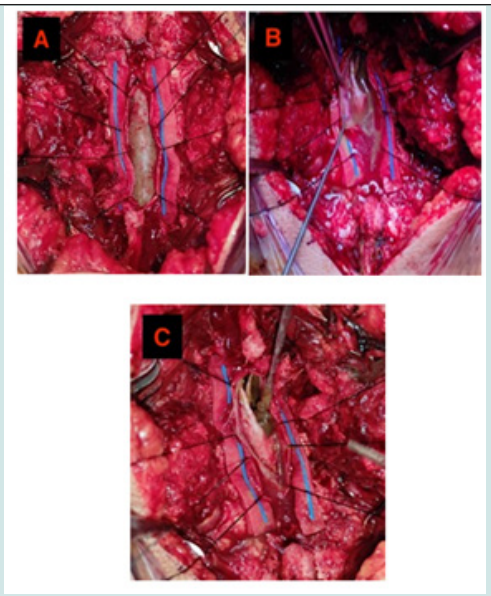

Figure 2: Intraoperative images (A,B,C) showing atypical aspect of the hematoma.

Discussion

Spontaneous spinal subdural hematoma is a rare entity [3]. The mechanisms explaining the development of SSDH are still unclear. The most frequent localization [3] is at the thoracic level followed by cervical and then lumbar and symptoms are variable from a backpain to paraparesis/paraplegia [4]. Diagnosis has been improved nowadays with the use of MRI [5], in the acute phase, hematomas appear on T1WI with iso-signal intensity to nerve tissue and on T2WI as low signal intensity. From one to two weeks, the hematoma appeared as iso-to- high signal intensity on T1WI, and an increase in signal intensity on T2WI. Our literature review found that there are three treatment options for SSDH: conservative, percutaneous drainage or surgical removal. Effective conservative treatment has been reported if neurological symptoms are transient [6]. Lee et al. reported the case of a 15-year-old boy in whom the subdural hematoma of the spine completely resolved after needle aspiration and drainage [7]. When the symptoms are severe or worsening, urgent surgery is indicated to have good improvement. The prognosis depends on the early diagnosis and adequate management.

Conclusion

To conclude spontaneous spinal subdural hematoma are not frequent. There are no specific symptoms, but MRI improved the diagnosis. The prognosis is good if there is an early diagnosis.

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