



Case Report

A Late Presentation of Epidural Hematoma After Epidural Cord Stimulation Surgery

Özel Halit*, Meurant Virginie

Emergency Department, CHU Tivoli, Université Libre de Bruxelles, Belgium.

*Corresponding author: Özel Halit, Emergency Department, Université Libre de Bruxelles, Belgium.

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Abstract

Epidural hematoma is a rare complication that may occur after spinal cord stimulation surgery. Its incidence isn't well known, and it typically arises in the immediate postoperative period. This case highlights the possibility of a delayed onset of this complication, even when magnetic resonance imaging does not reveal a hematoma. The history and physical examination are essential for the diagnosis and effective treatment of the patient.

Keywords: Spinal Cord Stimulation; Hematoma; Compression; Spinal Cord Injury

Introduction

Epidural hematoma is a rare complication that may occur after spinal cord stimulation surgery (SCSS). Multiple case series and review of the literature [1-3] failed to precisely define its incidence, which is only estimated based on few cases reported in the literature [4]. It is often described in the immediate postoperative period [5]. Considering the potential injury caused by compression, early recognition and treatment are important, otherwise the patient may suffer from severe sequelae [6]. We are reporting here the case of a patient who developed a symptomatic epidural hematoma 13 days after the procedure, which is, in our knowledge, the only reported case where this complication occurs this late.

Case Report

A 76-years-old man visited the emergency department with a sudden onset of paraplegia and anesthesia of the lower limbs,

along with a lower back pain for the past 2 days. He reported to wake up late night to use the bathroom and came back to his bed. One or two hours later, he noticed he could no longer move or feel his legs. There was no other complains, particularly no fever. He had undergone SCSS for failed back surgery syndrome approximately 2 weeks ago. He had a medical history of ischemic cardiomyopathy and atrial fibrillation, for which he was taking acetylsalicylic acid (ASA) and edoxaban. At his arrival in the emergency department, his vital signs were within normal limits. The physical examination showed anesthesia below the level of 11th thoracic dermatome, associated with a plegia of the legs. A spinal cord magnetic resonance imaging (MRI) was performed and showed signs of compression and possible injury of the spinal cord under the implanted stimulation material, without a visible hematoma (Figure 1). Considering the physical examination and MRI results, the patient underwent explorative surgery, revealing a hematoma under the epidural electrode, which was then drained. The follow-up after surgery was marked by a progressive sensory and motor recovery of the legs.

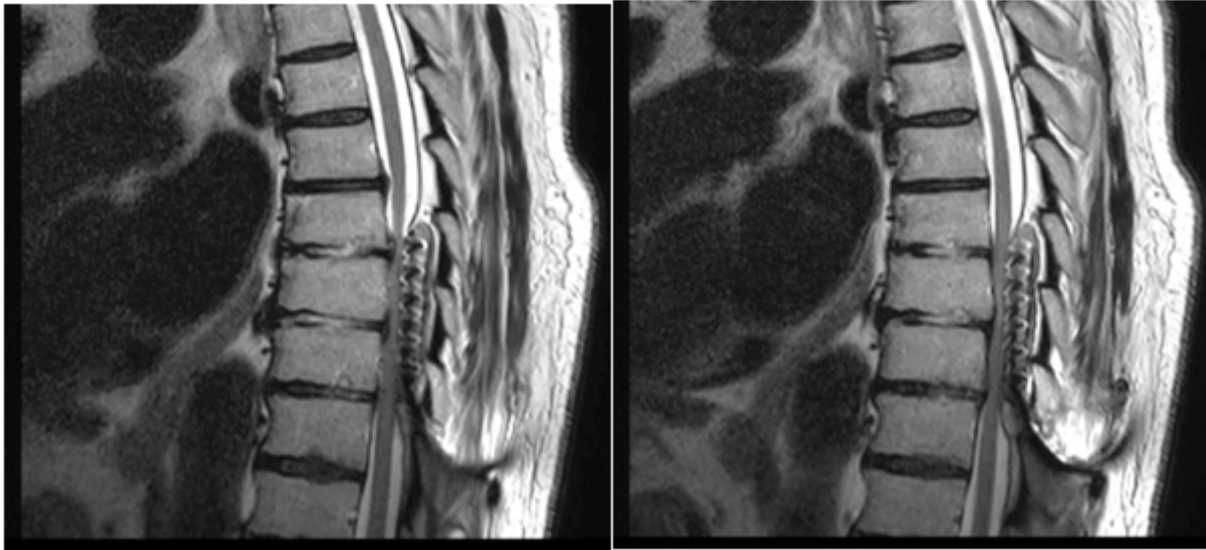


Figure 1: spinal cord MRI showing signs of compression under the electrode, without a visible hematoma.

Discussion

Epidural hematoma is a rare condition that may occur following SCSS. We reported here the case of a patient who developed symptomatic epidural hematoma 13 days after the procedure. To our knowledge, it is the only reported case with such a delayed onset. It is interesting to notice that the patient was taking edoxaban and ASA as part of his usual medication. Although these medications were discontinued before surgery and reintroduced after a recommended period, we should consider their role as contributing factors for a late onset hematoma. The spinal cord MRI demonstrated signs of compression but did not show the hematoma, later revealed during surgery. The management was guided by clinical examination and spinal cord MRI, allowing a rapid and adequate treatment, with a progressive recovery of the patient's neurological functions.

Conclusion

Epidural hematoma is a rare condition with a poorly defined incidence, following SCSS [4]. Usually reported during the immediate postoperative period [5], we draw attention here to the fact that it can also occur later. The MRI, although revealing spinal cord injury, can fail to show the hematoma. The role of anticoagulant and antiplatelet agents as risk factors for late presentation remains to be defined. History, clinical examination, and MRI are essential for the efficient management of the patient.

Conflict of Interest: The authors declare that they have no competing interests.

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