

Spontaneous Epidural Hematoma during Pregnancy

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Abstract:

Spontaneous epidural hematoma during pregnancy is rare but it requires urgent diagnosis and decompressive surgery because the prognosis is mainly linked to the speed of treatment.

Reporting the case of a pregnant woman in the 8th month of pregnancy who presented back pain with paraplegia, an MRI was performed on her returning in favor of a compressive hematoma at the D1D2 level. Followed by a D1D2 laminectomy with evacuation of the hematoma. The postoperative period is marked by total neurological recovery.

Keywords: epidural hematoma ; spinal cord compression ; pregnancy

Introduction

Spontaneous epidural hematoma in pregnant women is a rare occurrence. the known aetiologies of spinal cord compressions must be eliminated to talk about the spontaneity of compressive hematoma such as: vascular malformations, tumors, vertebral spinal cord injuries, coagulopathies and treatment with anticoagulants this is a neurosurgical emergency, the prognosis of which depends on the speed of treatment. The results are generally excellent if the patient is taken on time.

Reporting the case of a patient with spontaneous compressive medullary hematoma with discussion of etiology, clinical presentation and management.

Observation

Patient k. Y. SAMIA aged 30; with no particular history, she referred us there from the gynecology department for the management of a sudden onset flaccid paraplegia associated with sphincter disorders such as bladder retention.

The patient is 08 months pregnant. There is no specific history in the clinical history of "blood diseases ..." or trauma in the patient that may be related to the clinical picture.

Neurological examination found flaccid paraplegia without sensory disturbances. Sphincteric disorders (bladder globe) are present.

As part of the exploration workup, a spinal cord MRI was performed in her who found an extradural hematoma compressing the marrow at the dorsal level D1D2.



Figure 1: T2 section showing the HED in DID2

The biological assessment in particular, the hemostasis assessment was normal.

The patient was operated on urgently by performing a cesarean section

followed by posterior spinal cord decompression or a laminectomy was performed from D1 to D2 with evacuation of the compressive extra dural hematoma.



Figure 2: post-operative T1 aspect section



Figure 3: T2-weighted section of the post opaspect.

The operative consequences are favorable with a total neurological recovery.

Discussion

Spontaneous epidural hematoma is a rare etiology of spinal cord compression in women during pregnancy. Only a few cases have been reported in the literature.

A search of PUB MED in the English literature from January 1966 through December 2009 using the term (spontaneous epidural hematoma) and (pregnancy) only 11 cases were reported. [1]

Spontaneous spinal epidural hematoma can be observed at all ages with a predilection between 20 and 45 years. [1] Spontaneous spinal epidural hematoma most often affects the hinge areas of the spine with a maximum frequency at the cervico-dorsal level. [2] It sits mainly in the posterior epidural space. [3]

As to the origin of this bleeding; it is still unknown and may be due to a multifactorial origin, however, several studies suggest that the origin of the bleeding is venous facilitated by the richness of the epidural venous plexuses [4]. due to the pressure difference of the abdomino-thoracic cavities which are closely linked leading to a bursting of the epidural venous plexuses probably following an increase in the pressure of the abdominal cavities complicating the pregnancy [5] Other authors propose as arterial origins - the epidural arteries - especially in hypertensive patients – [6]

The clinic boils down to the onset of back pain or neck pain suddenly followed by the installation of deficient neurological signs in the limbs depending on the site of the compression, either unilateral or bilateral from the outset; with sphincter disorders. This condition can occur both at rest and on exertion without any particular triggering circumstance.

Medullary MRI is the key examination that allows a positive diagnosis of HED in view of these characteristics of the hematoma signal [7]. In T1-weighted sequences, we note an early hyper intense signal and in T2 a still hyper signal more intense. Gadolinium injection enhances the dura mater limits and allows better topographical definition of the lesion. MRI

allows the differential diagnosis with the causes of spinal cord compression such as excluded disc herniation, tumors, acute myelitis or even spinal cord infarction. [8]

Decompressive surgery is the emergency treatment. Performed in emergency, decompressive laminectomy allows the release of the compression and the search for a possible etiology to this bleeding. several studies have demonstrated the close relationship that exists between the time between the start of the clinic and decompression and the good results obtained. [9]

Conclusion

Spontaneous epidural hematoma during pregnancy is a rare phenomenon. in front of the appearance of neurological signs in a pregnant woman evoking a spinal cord compression such as: neck pain or back pain associated with progressive deficit signs, a diagnosis and treatment must be undertaken urgently since the prognosis is closely linked to this rapidity of supported.



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Reference

- 1- Peng Wang, Xiao-tang Xin, Hai Lan, Cong Chen, and Bo Liu | Spontaneous cervical epidural hematoma during pregnancy: case report and literature review *Eur Spine J.* 2011 Jul; 20(Suppl 2): 176–179.
- 2- Groen RJ, Groenewegen HJ, Alphen HA, et al. Morphology of the human internal vertebral venous plexus: a cadaver study after intravenous araldite CY 221 injection. *Anat Rec.* 1997;249(2):285–294. doi: 10.1002/(SICI)1097-0185(199710)249:2<285::AID-AR16>3.0.CO;2-K. [PubMed] [CrossRef] [Google Scholar]
- 3- Groen RJ., Poussen H. The spontaneous spinal epidural hematoma. A study of the etiology. *Neurol Sci.*, 1990; 98: 121-138.
- 4- Nystrom EU, Blomberg SG, Buffington CW, et al. Transmural pressure of epidural veins in the thoracic and lumbar spine of pigs. *Anesthesiology.* 1998;89(2):449–455. doi: 10.1097/00000542-199808000-00022. [PubMed] [CrossRef] [Google Scholar]
- 5- Yonekawa Y, Mehdorn HM, Nishikawa M, et al. Spontaneous spinal epidural hematoma during pregnancy. *Surg Neurol.* 1975;3(6):327–328. [PubMed] [Google Scholar]
- 6- Jea A, Moza K, Levi AD, Vanni S. Spontaneous spinal epidural hematoma during pregnancy: case report and literature review. *Neurosurgery.* 2005 May;56(5):E1156; discussion E1156.
- 7- Lederle FA., Cundy KV., farinha P., Mc Cormick DP. Spinal epidural hematoma associated with warfarin therapy. *Am J Med.* 1996, 100, 237-238.
- 8- Nagata K., Ariyoshi M., Ishibashi K., Hashimoto S. Chronic lumbar epidural hematoma in a patient who had spondylolysis at the third lumbar vertebrae: report of a rare case involving a seventeen-years-old adolescent. *JBJS.* 1998, 80- A : 1515-1520.
- 9- Groen RJ, Alphen HA, et al. Operative treatment of spontaneous spinal epidural hematomas: a study of the factors determining postoperative outcome. *Neurosurgery.* 1997;39(3):494–508. [PubMed] [Google Scholar]

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