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Case Report

Stab injury to the lumbar spine without neurological involvement in a child

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ABSTRACT

Background: Stab wound injuries are extraordinary in the child, the thoracic and lumbar spine are the most observed. Patient could be asymptomatic and it could lead to a neurological deficit.

Case Description: We report a case of a 15-year-old boy victim of a stab wound injury with a knife. He was neurologically intact but the local examination showed blood and clear fluid. The patient underwent surgery and the knife was removed with the reparation of a dural tear.

Conclusion: Stab wound injuries in child are very rare, the management is clear if there is compression, bleeding or cerebrospinal fluid leakage, and the prognosis depends on the symptoms.

Keywords: Childhood, Knife, Lumbar spine, Spinal cord injury, Stab injury

INTRODUCTION

Stab wound injuries are very rare; they are most commonly inflicted with knives.

In children, only some cases have been described in the literature. Such injuries are often accompanied by some neurologic symptoms. The thoracic and lumbar spine was the most observed.

CASE REPORT

A 15-year-old boy was admitted to the Emergency with a stab-wound injury from a knife in the lumbar region [Figure 1].

The general examination was normal and the neurological examination did not show any deficit. Local examination showed blood and clear fluid suggestive of cerebrospinal fluid (CSF).

Spinal lateral radiographs [Figure 2] and a computed tomography (CT)-scan [Figure 3] were done. It shows a midline trajectory in the lumbar spine passing through the inter-laminar space pointed toward L1, we could not visualize more details due to artifacts.

The patient underwent surgery. The stab wound was included in the incision [Figure 4], and the paraspinal muscles around the knife blade were dissected. We performed an L1-L2

Figure 1: Clinical image of the patient in the emergency.

Figure 2: Spinal lateral X-ray.

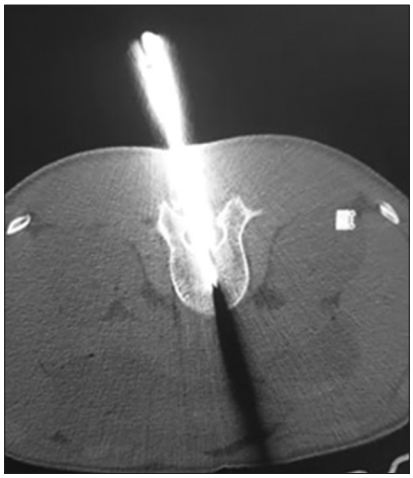

Figure 3: Axial computed tomography scan showing the knife into the canal.

laminectomy, the knife was removed under vision [Figure 5]. There was a large dural tear that we repaired. The

Figure 4: Intraoperative image showing the knife into the canal.

Figure 5: Picture of the knife.

inspection showed the spinal cord and nerve roots that was intact. The patient was treated empirically with antibiotics for 3 days.

The patient recovered well without any complications.

DISCUSSION

Penetrating spinal injuries due to stab wounds in the child are very rare.[1,2] This entity is rare, only a few cases were reported in the literature.[3,4]

They are associated with a high percentage of neurological deficit,[4] which may be due to direct spinal cord trauma or secondary to epidural hematoma.

A detailed neurological examination should be done, as well as the realization of standard X-rays and a CT-scan with reconstruction.

The optimal management of penetrating spinal injuries is controversial. Some authors advocate surgery for decompression of the spinal cord by a foreign body or bleeding, to avoid CSF leakage and unstable injuries.[1,2] Other authors advise to not operating all cases.[1] In our case, the surgical problem was not present because the knife had to be removed.

If the surgical indication is retained, the surgery must be performed as early as possible to avoid infectious complications.

CONCLUSION

Stab wound injuries in child are very rare. The management is clear if there is compression, bleeding or CSF leakage. The prognosis is good if there are no neurological symptoms.

Declaration of patient consent

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

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Conflicts of interest

There are no conflicts of interest.

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