

Discal bullet syndrome: Case report and review of literature

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Abstract

Disc bullet syndrome is a rare entity, usually occurred by a brutal overweight, it keeps a good prognosis despite of an urgent treatment

Keywords: Disc herniation, bullet, MRI, surgery

1. Introduction

Discal bullet syndrom is a rare entity, with a different clinical presentation and prognosis depending on localization, and precocity of surgery, most of retrospective studies support urgent surgery, in order to obtain best results.

2. Clinical presentation

We report here a case of a 25 years old man, with no specific medical history who was admitted to our hospital for acute urinary and stool retention, the patient report that few hours earlier he carried a heavy load about 80 kg for 50 meters, immediately he felt a violent lumbar pain described like a shoot gun.

At the admission, the patient was conscious, GCS 15, no motor deficit was found, he presents a Saddle anesthesia , with an urinary and Faecal retention, the rest of the physical examination was normal.

Blood test for our patient was also normal.

The patient underwent initially a lumbar CT scan than an MRI; they have shown a pseudotumoral disc herniation at the L4-L5 level.

Few hours later the patient was operated with a posterior approach, we realized a laminectomy of L5 and a complete Discectomy of L4-L5 disc. The anatomopathologist confirmed later that it was a fragment of disc.

24 hours after surgery, the sensibility of the perineal region improved a little and the patient started a vesical rehabilitation, at last he was transferred to a rehabilitation unit for further care. The follow up was about 6 months, at last the patient was completely recovered.

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3. Discussion

We define the **CES** as the dysfunction of some or all lumbar and sacral nerve roots in the vertebral canal, it is relatively a rare condition about 2- 6 % of all lumbar disc herniation surgery -1-, the most common cause is the disc herniation, but we described also some cases of infection -4-, inflammation, traumatic, iatrogenic-3-, it usually happen in a context of a chronic back pain or history of sciatica which is not the same in our case report, Some patients are predisposed to develop a CES in particular those who have a congenital narrow spinal canal or degenerative conditions -2-

It is very important for a physician to recognize a CES and especially the incomplete and frust forms like our case, because the functional prognosis depends on rapid treatment, an imagery should be done immediately, MRI is described as the golden standard for exploring spine and soft tissues as ligamentum flavum, dural sac it confirms compression level, and most of time the cause -5- however this exam is not available in some centers and especially in the emergency department, and only CT scan can be done.

In our case the patient presented a brutal incomplete CES after carrying about 80 kg, he reported an acute lumbar pain described like a shoot gun which is called in literature «discal bullet syndrom» -6- it can be considered as a ballistic trauma in front of mechanism and intrinsic damages, it is a rare entity in literature, it can be also localized at the thoracic level with a bad prognosis in most of dorsal cases -6- quick treatment consisting on a laminectomy and a complete dissection was performed for our patient, added to an early rehabilitation sessions, allowed us to obtain a complete recovery 5 months later. Early surgical treatment is necessary in order to save the functional prognosis or at least to prevent permanent neurological deficits, it consists on a total removal of process usually by laminectomy and dissection -7-

4. Conclusion

The aim of this article is to help physician not only neurosurgeon but also general, emergency staff to understand some unusual cases of CES, to recognize it and to take the adequate treatment, and to be awake of the importance of time concerning functional prognosis.

Compliance with ethical standards

Disclosure of conflict of interest

The authors report no conflicts of interest.

Statement of ethical approval

Informed consent was obtained from the patient prior to the submission of this article. Also, this article respects both the Consensus-based Clinical Case Reporting Guideline and the Recommendations for the Conducting, Reporting, Editing, and Publication of Scholarly Work in Medical Journals.

Statement of informed consent

Informed consent was obtained from the patient to publish his case

Authors' contributions

AH contributed to conceptualization, writing, draft, reviewing and editing. SM was involved in writing and review. YCHD was involved in writing and iconography. AA was involved in wrtining. CM contributed to supervision. ACEA contributed to supervision. And GM contributed to supervision, validation, and review

Availability of data and material

All data are within the article

Submission statement

This manuscript is original and has not been submitted.

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