North American Spine Society Journal (NASSJ) 3 (2020) 100028

Contents lists available at ScienceDirect

North American Spine Society Journal (NASSJ)

journal homepage: www.elsevier.com/locate/xnsj

Commentaries

Spinal pseudogout is a joker. Commentary on "Calcium pyrophosphate deposition disease of the cervical and thoracolumbar spine: A report of two cases"

Daniele Vanni, Pedro Berjano*

IRCCS Istituto Ortopedico Galeazzi, Milan, Italy

ARTICLE INFO

Keywords:
Pseudogout spine diagnosis

In this issue, Moon et al. provide a detailed report on two cases of Calcium pyrophosphate deposition disease (CPDD), causing compression of the spinal cord and conus medullaris requiring surgical decompression and reconstruction [1].

Both cases presented on elderly patients, with known advanced degenerative disease of the spine. In both cases the mass was likely forming from the facet joint and both cases presented with a combination of severe pain and symptoms of neural compression (in different degrees, causing alteration of the spinal cord motor tracts in one case and unilateral lower limb pain mimicking radiculopathy in the second one). Both patients gained full resolution of symptoms and neurological function after surgery.

A number of cases of CPDD affecting the spine have been described in the literature, but most reports include one or few cases, which suggests that CPDD requiring surgery is relatively unfrequent. This is in contrast with the finding of high prevalence (as high as 25%) of deposits of calcium pyrophosphate in the cervical spine of patients with pseudogout affecting peripheral joints [2].

While the association of pseudogout with lumbar and cervical stenosis has been well described, some aspects of this condition deserve some attention. The prognosis of spinal canal decompression in patients with CPDD does not seem to be worse than that on patients with degenerative lumbar stenosis [3]. CPDD can also need to be distinguished from other spinal conditions, such as tumors [4], spinal infection [5], hematoma of the yellow ligament [6]. One of the two cases in this report presented with severe spinal sagittal misalignment that might be related to either the spinal cord compression or inflammation of the facet joints, and resolved after surgery, which suggests that CPDD can also be misinterpreted as spinal deformity of functional nature [7].

Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Supplementary materials

Supplementary material associated with this article can be found, in the online version, at doi:10.1016/j.xnsj.2020.100028.

References

[1] Moon AS, Mabry S, Pittman JL. Calcium pyrophosphate deposition disease of the cervical and thoracolumbar spine: a report of two cases. North American Spine Society J (NASSJ) 2020;3:100026. doi:10.1016/j.xnsj.2020.100026.
[2] Moshrif A, Laredo JD, Bassiouni H, et al. Spinal involvement with calcium pyrophosphate deposition disease in an academic rheumatology center: a series of 37 patients. Semin Arthritis Rheum 2019;48(6):1113–26. doi:10.1016/j.semarthrit.2018.10.009.
[3] Ariyawatkul T, Pichaisak W, Chavasiri C, Vamvanij V, Wilartratsami S, Luksanapruksa P. The role of calcium pyrophosphate dihydrate deposition in the postoperative outcome of lumbar spinal stenosis patients. Asian Spine J 2019;13(6):1001–9. doi:10.31616/asj.2018.0280.
[4] Turaga S, Thomas M, Savy L, Schreiber BE. Pseudogout or pseudolymphoma? Calcium pyrophosphate deposition disease of the cervical spine: a rare presentation and literature review. BMJ Case Rep 2019;12(12):e231508 Published 2019 Dec 2. doi:10.1136/bcr-2019-231508.
[5] Bridges KJ, Bullis CL, Wanchu A, Than KD. Pseudogout of the cervical and thoracic spine mimicking infection after lumbar fusion: case report. J Neurosurg Spine 2017;27(2):145–9.
[6] Cruz-Conde R, Berjano P, Buitron Z. Ligamentum flavum hematoma presenting as progressive root compression in the lumbar spine. Spine 1995;20(13):1506–9. doi:10.1097/00007632-199507000-00012.
[7] Redaelli A, Berjano P, Aebi M. Focal disorders of the spine with compensatory deformities: how to define them. Eur Spine J 2018;27(Suppl 1):59–69. doi:10.1007/s00586-018-5501-8.

DOI of original article: 10.1016/j.xnsj.2020.100026
* Corresponding author.
E-mail address: pedro.berjano@grupposandonato.it (P. Berjano).

https://doi.org/10.1016/j.xnsj.2020.100028
Received 8 September 2020; Accepted 9 September 2020
Available online 12 September 2020