

POST-TRAUMATIC MONOPLÉGIA ON CERVICAL MYELOPATHY BY OSSIFICATION OF THE POSTERIOR COMMON VERTEBRAL LIGAMENT: A CASE REPORT AND REVIEW OF THE LITERATURE

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ABSTRACT

Ossification of the posterior common vertebral ligament (CPLV) is a hyperostosing pathology relatively common in Japanese subjects, which has earned it the name “Japanese disease”. It is characterized by heterotopic ossification within the LVCP which can lead to spinal cord compression and severe myelopathy. It is most often of cervical location and should lead one to primarily look for an abnormality of phosphocalcic metabolism, in particular familial hypophosphatemic vitamin-resistant rickets or hypoparathyroidism, enveloping vertebral hyperostosis or joint chondrocalcinosis. We report an exceptional case of ossification of the LVCP in the cervical region about a Moroccan patient.

KEYWORDS: CPLV – Recurrence.

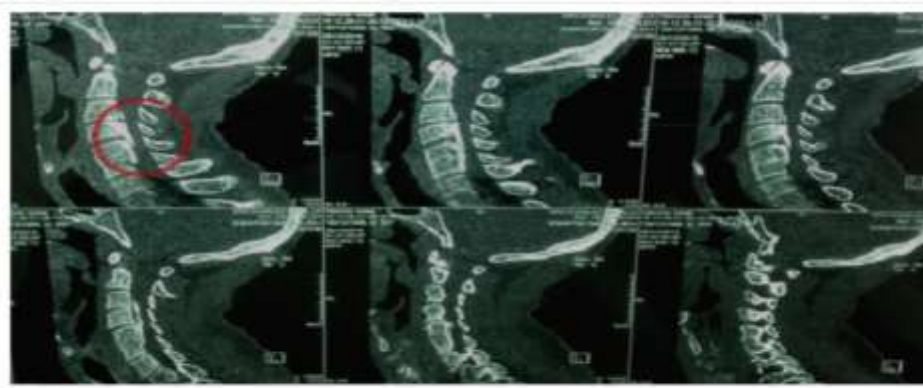
A) INTRODUCTION

Ossification of the posterior common vertebral ligament = bony metaplasia within the ligament narrowing of the lumen of the spinal canal generally cervical.^[2] Japanese population +++: exceptional outside of Japan.^[1] Reporting to us a rare case of OPLL* which caused post-traumatic monoplegia

- Neurological examination = left brachial monoplegia without sensory disorders or sphincter disorders (ASIAD)
- Emergency CT = intracanal ossification of the posterior LVC extended from C3 to C6 narrowing the cervical canal and allowed the diagnosis to be retained.

B) CASE REPORT

- It's about a 50 years men, victim of a public road accident



OPLL

MRI = Medullary T2 hypersignal extended from C3 to C6 with myelomalacia facing the C4 C5 disc.



C) DISCUSSION

Ossification of the posterior common vertebral ligament (LVCP) results from abnormal and ectopic calcification of the posterior common vertebral ligament, it mainly affects the cervical spine.^[3,4]

It is more common in Japan with a prevalence of 2 to 4% compared to 0.01 to 2% in non-Asian populations.^[4] and it is twice as common in men as in women.^[3] with a peak frequency in the 5th and 6th decade.^[4]

Its etiopathogenesis is not well elucidated. Various hypotheses have been put forward including disorders of phosphocalcic metabolism, genetic and environmental factors.^[2,4]

Ossification of the LVCP can present according to four morphological types.^[1,3]

- A local form developing on the face posterior of the intervertebral disc
- A continuous ossification extending over several levels vertebral as in our case ;
- A segmental ossification located behind each body vertebral
- A mixed attack combining the two previous types.

Clinically, 5% of patients with ossification of the LVCP are asymptomatic, neurological damage can be present to varying degrees including radiculopathy and myelopathy,^[4] the latter is due to reduction of the medullary canal and to compression of the cord by ossification of the LVCP. Most often, it is a slowly progressive spastic tetraparesis predominating in the lower limbs.^[2] The severity of the symptoms of myelopathy is exacerbated by the existence of a cervical canal narrow congenital.^[4]

The diagnosis of ossification of the LVCP can be made on the standard x-ray of the cervical spine apart from the beginning forms hence the interest of the scanner which allows a better analysis of the cervical spine and to make 2D and 3D reconstructions facilitating the diagnosis.^[2,4] MRI also makes it possible to diagnose this condition by showing the ossification of the ligament in the form of a hyposignal in weighted sequences in T1 and T2 weighted sequences but above all it allows the spinal cord to be analyzed in search of signs of myelopathy resulting in an intramedullary T2 hyper signal which is a poor prognosis factor even after surgical treatment.^[4] The treatment is surgical. Surgical approaches are discussed according to the type of ossification of the LVCP, its extension and canal narrowing. It can be done via an anterior, posterior or mixed approach.^[2,5]

CONCLUSION

OPLL is a rare condition that rarely reveals itself as a spinal cord contusion.

Its diagnosis is essentially based on CT.

The posterior approach remains the most recommended given the dangers of the anterior approach.

CONSENT

The patients have given their informed consent for the case to be published.

Competing Interests

The authors declare no competing interest.

Authors 'Contributions

All authors have read and agreed to the final version of this manuscript and have equally contributed to its content and to the management of the manuscript.

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