Diagnostics, Classification and neurosurgical treatment of Lumbar Epidural varices

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Introduction

Introduction: Dilated lumbar epidural veins are vascular abnormalities causing compression, ischemic injury and excessive pressure on spinal nerve roots, theca sac or dorsal ganglia, giving rise to symptoms of lumbar radiculopathy of the involved neural structures. Degenerative changes of the spine might also be observed

Importance : The importance of mentioned pathology is in the complexity of its diagnosis - missed diagnosis, relatively small number of observations, classification types, publications & estimates of the long-term outcomes of surgical treatment of this pathology on follow-ups. **Misdiagnosis** is often encountered due to low awareness even on MRI.

Objectives. The aim of this study was to increase the awareness and lay emphasis on the importance of diagnosis, classification, pattern of occurrence, and surgical treatment of lumbar epidural varices.

Methods and Materials

Observation: We selected 250 pts from a broad-spectrum of spinal pathologies over 30years period.

Diagnostic method: ***E***nhanced lumbar MRI and occasional CT.

AdditionalDiagnostic method: venospondylography

Surgical Intervention : Laminectomy and microscopic decompression using microcoagulation - bipolar cautery and eventual excision

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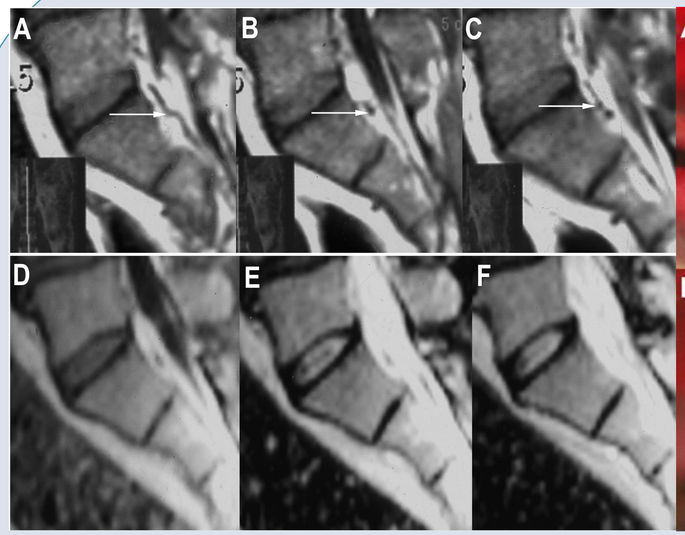

Fig. 1. ABC is the state before surgery, DEF is the state after surgery.

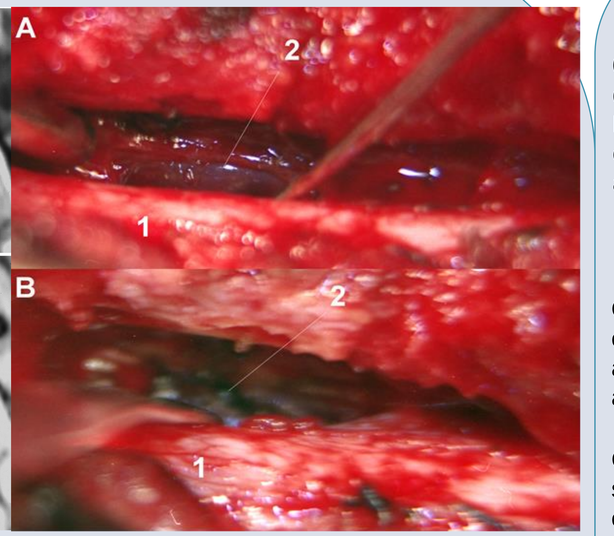

Fig. 3 (A) Before Coagulation of varicose veins. 1 - dural sac, 2 – intact venous sac under the articular processes. (B) 1 - dural sac, 2 - coagulated venous sac under the articular processes.

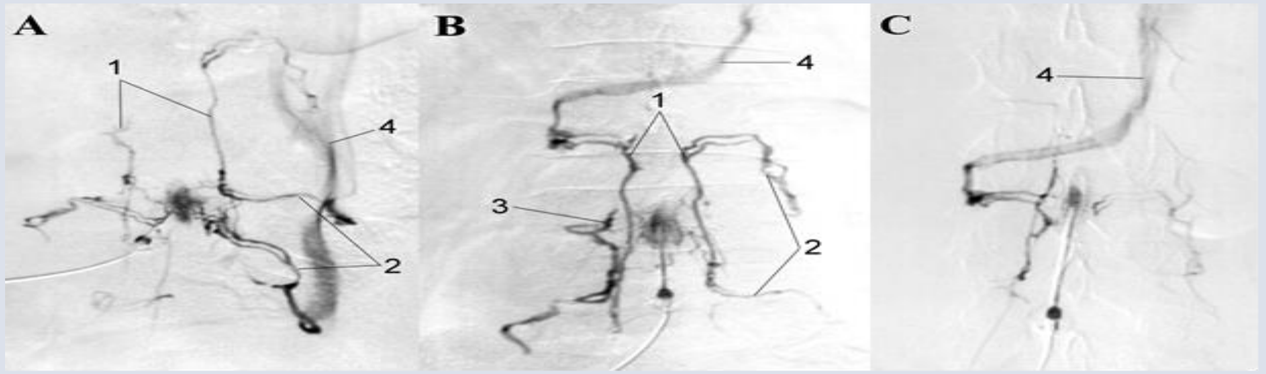

Fig.2. Local varicose veins, additional dilated ventral longitudinal venous trunk. ABC: A - venospondylography in the spinous L4, B - venospondylography in the spinous L5, C - venospondylography in the spinous S1. 1 - ventral longitudinal venous trunk, 2 - intervertebral veins passing into segmental veins, 3 - additional venous trunk, 4 - drainage into the ascending lumbar vein.

Outcomes

65.6%, 26.0% & 8.4% segmentary, local and diffused varices respectively in two cohort studies. Radicular pain regressed in 139, 56 and15 observations respectively in accordance to the above classification

Discussion and Conclusion

Occurrence, diagnostic algorithms, clinical classification and surgical treatment of LEV must be assessed, identified and established to optimal algorithm for examining patients with LEV

Combining Venospondylography with VAS as a screening method for verification of LEV, we optimised Clinical manifestations, diagnostic criteria & tactics

We Optimised diagnostics tactics, patterns of frequency and eventually maximise surgical tactics in conjunction with adequate verification and established indications for surgical intervention in case of failure of complex conservative treatment for 6 months, or earlier with the progression of neurological symptoms in no less than 6 months.

Conclusively, **LEV** should be considered in the differential diagnosis of spinal radiculopathy

Abbreviation: LEV: Lumbar Epidural Varix, VAS: Visual Analog Scale. Key words: Venospondylograghy, Varices, misdiagnosis

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