Conus perimedullary arteriovenous fistulae: case report

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Case report of Conus perimedullary arteriovenous fistula

Introduction

- Rare type of neurovascular malformation
- 1.6% of intracranial vascular malformations
- Comprises of single or arterial feeders draining directly into venous channels without tangle of blood vessels as in brain AV malformations
- The higher pressure the gradient, the more vulnerable to rupture and poor prognosis
- Haemodynamic disturbance associated with these malformation can cause oedema with subsequent myelopathy
- On MRI, this oedema can mimic intramedullary tumour.

Presentation

- 72 year old Chinese male presented with 8 month history of lower back pain + knee pain and symptoms of progressive myelopathy (lower limb numbness and weakness)
- PMH: HBV carrier, renal cysts
- Pain tolerance limited by lower back pain and calf numbness, no previous history of injury
- O/E patient had absent reflexes L4/L5

- Private MRI plain LS on 7/2/2020: Lumbar spondylosis with mild to moderate posterior disc protrusions from L2/3 to L5/S1
- Probable compressions upon left L3 nerve roots at L2/3 level
- Bilateral Neuro foramina also narrowing at multiple levels, with compression upon Left L3, bilateral L4 and L5 exiting nerve roots
- Several small T2 Hypodense modular lesions in cauda equine, non specific on plain study

Progress

- 27/5/2020 left T11 intercostal artery arteriogram showed enlarged artery of adamkiewicz and anterior spinal artery leading to two AVF at L2 and L3 level, drained by dilated and tortuous veins
- MRI LS spine on 29/5/2020: Similar findings
- L1/2 Laminectomy for exploration and disconnection of spinal Dural AVF on 9/7/2020
- Post op LS spine X-ray: Degenerative change with bony spur, normal alignment
- DSA on 24/8/2020: No residual AVF

Conclusion

- Patients presented with atypical back pain and symptoms should be further investigated to exclude spinal pathology.