Medullary and Foraminal Stenosis by Lumbar Vertebral Hemangioma: How to approach?

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Background: Embolization is the occlusion of a vessel, performed to reduce the internal flow of blood; this has become an accepted modality of cancer treatment in patients with various clinical scenarios. Embolization in the treatment of cancer aims to form Ischemia within the tumor, which eventually results in the necrosis of the tumor.

Case Series And Methods: Case report based on the retrospective analysis of the medical record and complementary exams of the patient associated with a literature review of indexed databases MEDLINE, LILACS, SciElo, BIREME, Scopus, PubMed, Cochrane Library.

Case Report: Clinical History - Female patient, 53 years old, progressive axial low back pain, neurogenic claudication, 10/10 Visual Analogue Scale (VAS) pain, associated with L3 and L4 sciatic pain on the left. The patient initially underwent embolization of L3 vertebral hemangioma with a slight improvement of axial pain but persisted with VAS 8/10 after embolization. Due to compression of spinal cord canal at L3 level and presence of lesion with foraminal compression of left L3 due to infiltrated pedicle and facet of L3/L4 and thickened by vertebral hemangioma, it was decided to perform posterior decompression (Laminectomy) and foraminal (Foraminotomy) to the left. Operating without embolization these cases bleed a lot so it was important to embolize first. In surgery, the patient lost 1.5 liters of blood but was uneventful due to blood transfusion. Spinal Cord Decompression, Foraminotomy, and Arthrodesis were performed. The patient is currently without pain.

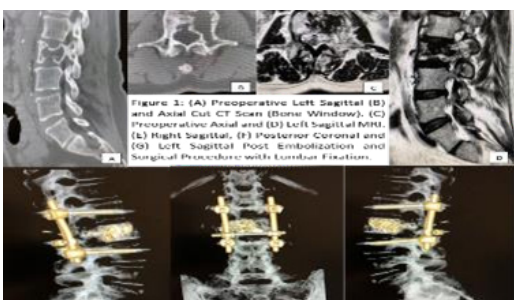
Figure 1: (A) Preoperative Left Sagittal (B) and Axial Cut CT Scan (Bone Window). (C) Preoperative Axial and (D) Left Sagittal MRI. (E) Right Sagittal, (F) Posterior Coronal and (G) Left Sagittal Post Embolization and Surgical Procedure with Lumbar Fixation.

Conclusion: Embolization in the treatment of cancer aims to form Ischemia within the tumor, which eventually results in the necrosis of the tumor. There is a large amount of bleeding; hence embolization is essential in reducing the loss of blood and decompression to infiltrate foramen and posterior lamina, exactly so as not to interfere with the tumor itself.

Biography

Breno Nery is a Neurosurgeon at Beneficencia Portuguesa Hospital (Ribeirão Preto – Brazil) and PhD student at the Medical School of Ribeirão Preto (Ribeirão Preto – Brazil). He received his M.D. from Universidade Federal de Goiás (Goiânia – Brazil) and did his residency program at Heliópolis Hospital (São Paulo – Brazil). He is interested in General Neurosurgery and especially in Skull Base and Vascular Surgery. Breno had the opportunity to travel the world to learn with the most skilled surgeons in the field. He did his visiting Fellowship in Skull Base Surgery with Professor Madjid Samii (Hannover – Germany) and his Observership focused on Skull Base Surgery and Vascular Surgery with Professor Saleem Abdulrauf (Saint Louis – USA). He also did an observership focused on Endoscopic Surgery at Brigham and Women's Hospital (Harvard Medical School) under the guidance and orientation of Professor Edward Laws, as with Professor Ossama Al-Mefty focused on skull base pathologies. Breno Nery M.D. was honored with first place at the Brazilians' Board Exam (Brazilian Neurosurgical Society). Breno Nery authored and co-authored 13 book chapters and 17 peer-reviewed articles. He is currently a member of the Brazilian Neurosurgical Society and the Walter and Dandy Neurosurgical Society.

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