

Lumbar Intradural Extramedullary Haemangioma

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ABSTRACT

Vascular malformations with histopathological features of more than a single type of malformation present within the same lesion have been previously described. These lesions are very rare and named as mixed vascular malformations. So far only 57 cases have been reported in the literature. We report a case of a lumbar intradural extramedullary capillary hemangioma due to its rarity.

Keywords: vascular malformation, capillary haemangioma, haemangioma

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INTRODUCTION

Vascular malformations of the spine are classically divided into four groups, each with different pathological and radiological properties. This widely accepted classification includes venous, cavernous, arteriovenous and capillary malformations. However, some authors recently reported cases of vascular malformations exhibiting pathological features of more than one discrete malformation type within the same lesion. These lesions are rare and are named as "mixed vascular malformations".

CASE REPORT

A 22-year-old male patient presented with a 4-month history of progressive lower back pain. The patient had

recently developed difficulty with walking. No history of trauma, fever, loss of weight and loss of appetite. On examination no neurological deficits noted. Because he was not relieved with medical management, X-ray lumbar spine and MRI spine was advised. MRI showed peanut sized solid tumor at L-4/L-5 level.

After preoperative workup patient has been submitted for surgery and noted a 0.5 x 0.75cm oblong swelling attached to root of L-4. There were no abnormal vessels and total excision of mass was achieved and sent for histopathological examination. Patient recovered well after surgery, relieved of pain without any neurological deficits. Histopathological report showed mixed capillary venous angioma.



Figure 1: T2 sagittal view showing well circumscribed intradural extramedullary lesion at L4-L5 level

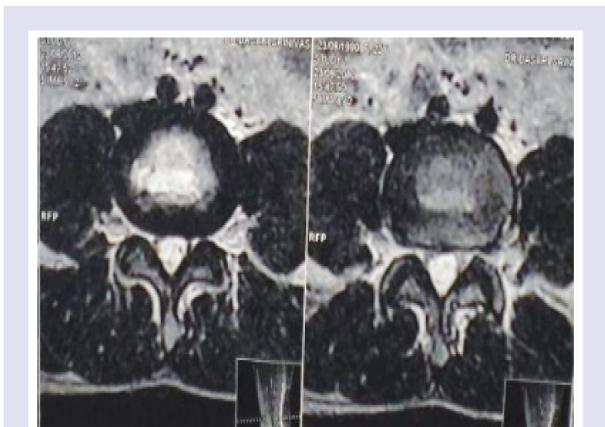


Figure 2: T2 axial view showing hyperintense mass lesion with obliterated spinal canal and nerve roots

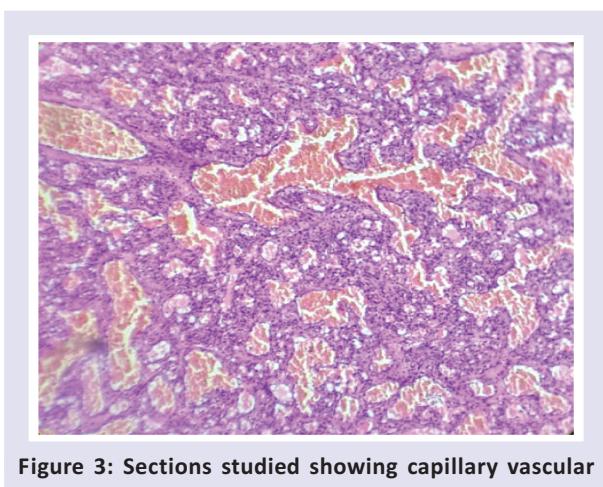


Figure 3: Sections studied showing capillary vascular spaces admixed with cavernous spaces dilated with blood

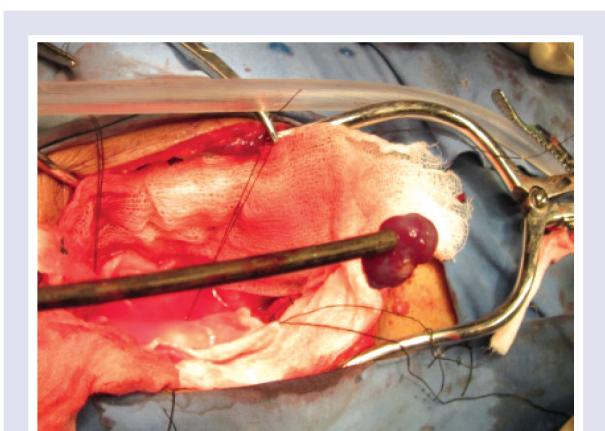


Figure 4: Intraoperative image showing excised tumor mass

DISCUSSION

The differential diagnosis for enhancing intradural extramedullary lesions in the spinal canal is long and includes meningioma, hemangioma, schwannoma, hemangioblastoma, and paraganglioma. The identification of draining veins on MR images may help in differentiating the hypervascular lesions such as hemangioma, hemangioblastoma, and paraganglioma from the other nonhypervascular lesions and suggest the need for preoperative angiography and embolization if necessary.

Capillary hemangiomas, which are uncommon in the spinal canal,^[1-3] contain capillary networks surrounded by collagenous stroma without hemosiderin deposition. To the best of our knowledge, the presence of enlarged draining perimedullary veins has not been reported

previously. They may have been overlooked on initial assessment. These enlarged draining veins would also be expected in other vascular lesions such as hemangioblastoma or paraganglioma.

This lesion will be hypervascular at angiography and demonstrates an early tumor like blush with inhomogeneous peripheral enhancement that rapidly becomes more intense and homogeneous as the hemangioma filled in from the periphery to the center. The tumor stain persists throughout the venous phase. Also there will be rapid opacification of perimedullary coronal plexus of veins dorsal to the spinal cord above the lesion.

When enlarged draining veins are associated with an intraspinal mass on MR images, the possibility of an extremely vascular tumor or vascular malformation

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should be entertained, and preoperative spinal arteriography or contrast-enhanced MR angiography should be considered. In addition, preoperative embolization may aid in the surgical resection of these vascular lesions, although in our case this was not done. MRI films are suggestive of schwannoma by statistical incidence.

CONCLUSION

Radiological presentation could be confusing in a purely intradural cavernous haemangioma. Awareness of the characteristics of the lesion will facilitate diagnosis and treatment of the lesion.

CONFLICT OF INTEREST

The authors declared no conflict of interest.

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