

# Lumbar para-spinal haemangioma as a rare differential diagnosis of lumbar disc prolapse

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## Abstract

Paraspinal muscle haemangioma in itself is an uncommon entity with very few literatures documenting it. It can present as a rare differential diagnosis of lumbar disc prolapse. Although excision is the standard treatment, chances of recurrences cannot be ruled out .

## INTRODUCTION

Intramuscular haemangiomas are a rare entity unlike their cutaneous counterparts, with the lumbar paraspinal location barely mentioned in the literature. Muscular ischaemia due to haemangioma in this region presents as low back ache. The haemangiomas of this type have a later age of presentation with exacerbations during pregnancy. Associated cutaneous lesions may not be present thus making a clinical diagnosis more difficult than childhood haemangiomas. Prior angiographic localization helps in planning the surgical excision with or without embolization.

## CASE REPORT

A 29 year old female attended us with complaints of low back ache, which was being treated elsewhere for the last six months conservatively as a case of posterior intervertebral disc prolapse of the lumbar spine. The pain was exaggerated on forwards and sideways bending and was not relieved by the treatment she was receiving in the form of rest, analgesics and lumbar traction.

## ON EXAMINATION

- Mild loss of lumbar lordosis was present
- Forward and sideway bending was painful
- An inconspicuous, diffuse, non fluctuant, non tender, soft swelling was observed over right lumbar (L3-L4) area, measuring 9 x 7 cm, not extending to midline with no impulse on coughing and the overlying skin was normal. Swelling was more discernable on forward bending and the patient complained of pain.

- No bony tenderness, signs of nerve root irritation or sciatic scoliosis was present.

## DIFFERENTIAL DIAGNOSIS

- Hamartoma
- Lipoma
- Hematoma (Trauma/ Haemophilia)

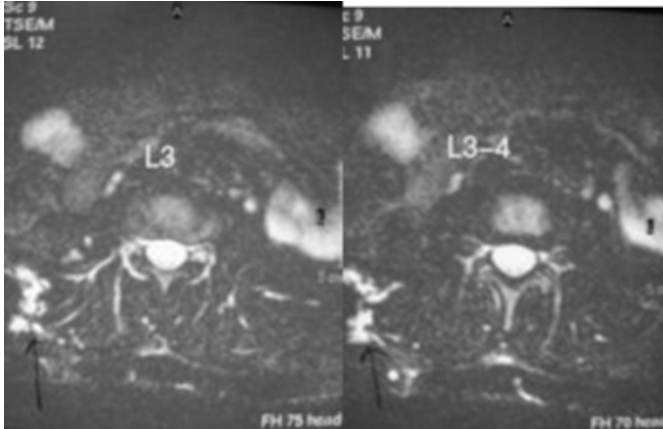
## INVESTIGATIONS

X-ray of the Lumbar spine showed no findings. Ultrasonography demonstrated a sizeable, 21.0 x 15.8 mm sized heterogeneous echogenicity in the right posterior soft tissue. A diagnosis of a mass lesion at L3-L4 vertebrae level showing mildly increased vascularity suggesting hemangioma with no attendant bony destruction was made.

Magnetic Resonance Imaging showed a well circumscribed 5.9 x 4.9 x 8.5 cm sized, relatively encapsulated heterogeneous T2 hyperintense area involving postero-lateral most muscles of right posterior para-spinal muscles with small subcutaneous component. This area was faintly hyperintense to attendant muscles on T1 W1, suggesting haemangioma ? nature. No suggestion of lipoma. The visualized vertebrae were normal in size, shape, alignment and bone marrow signal intensity except incidental haemangioma at L4 vertebral body.

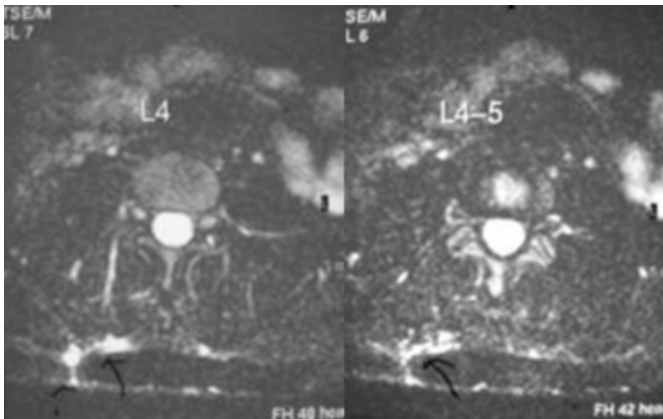
**Figure 1**

Figure 1: MRI images corresponding to L3 & L3-4



**Figure 2**

Figure 2: MRI images of level L4 & L4-5



**PROVISIONAL DIAGNOSIS**

Right paraspinal hemangioma opposite to L3-L4.

**TREATMENT**

Excision of the mass was done, under General anesthesia without prior angiography or embolization. The mass was sent for histopathology.

**RESULTS**

The mass consisted of one rounded grayish brown fibrofatty tissue piece with attached fibrofatty tissue measuring 8.5 x 6 cm. Postoperatively the recovery was uneventful. The specimen was subjected to histopathological analysis.

**Figure 3**

Figure 3: Gross specimen measuring 9 X 6 cm excised from the paraspinal muscles



**HISTOPATHOLOGICAL REPORT**

Cut surface is grayish white to grayish brown and showed few small haemorrhagic and cystic areas. Solid areas showed muscle fiber like tissue. The microscopic impression was of an intramuscular haemangioma

**Figure 4**

Figure 4: Histological picture of the haemangioma in the adjacent muscular tissue



The patient has remained symptom free for the last two years except for a symptomless local recurrence which was found during a routine follow up Magnetic Resonance Imaging done after two years.

**DISCUSSION**

Haemangiomas though uncommon in adults, if found are usually present in the skull and the vertebral column; unlike the childhood haemangiomas which by contrast are more common and mostly cutaneous in location (3). Intramuscular haemangioma is a very uncommon tumor that usually involves an extremity. They rarely occur after the age of 30 (2) and the paraspinous location has been barely mentioned

in literature (2,3). These paraspinal haemangiomas have been reported to be extending upto epidural space and causing an epidural haematoma (3) which may cause neurological symptoms.

As in this case, it presented with back ache, mimicking lumbar disc prolapse so it can be a differential diagnosis; although rare, of disc prolapse. In our case, patient was being treated as a case of disc prolapse on conservative line which did not relieve her

symptoms. Unresponsiveness to standard conservative management and a vague swelling over the lower back raised the suspicion of some other cause. The swelling was inconspicuous and the patient was unaware of it. The diagnosis in our case was based on clinical suspicion and confirmed by ultra-sonography, Magnetic Resonance Imaging and histopathology. (2,4).

Excision of the lesion was performed which has been done in these cases with or without prior arteriography and embolization (3,4,6).

The patient has been followed up for the last two years and has remained symptom free. A recurrence has occurred as confirmed in the repeat Magnetic Resonance Imaging at two years post-operatively. It suggests residual hemangiomatous

lesion ( focal hyperintensity on T1, T2 suppressed on T2 SPIR W1) at the same location without any increase in soft tissue bulk. This suggests pre-operative localization of the tumor by Magnetic Resonance angiography or conventional angiography followed by embolization to reduce tumor size may be an essential preoperative adjunct to surgery (2,3,5).

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