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A LUMBAR HERNIA: A RARE CONGENITAL ANOMALY

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INTRODUCTION

Lumbar hernias are very rare, less than 300 cases have been reported over the past 300 years.[1] Lumbar hernias manifest through two possible defects in the posterior abdominal wall either in superior (Grynfeltt) or inferior (Petit's) lumbar triangles. In 1866 Grynfelt described the three sided space that is bordered by the 12th rib superiorly, the internal oblique muscle laterally and the quadratus lumborum medially.[2] The roof of the triangle is formed by the latissimus dorsi and the aponeurosis of the transversalis muscle forms the floor. In 1774, Petit described a space bounded by the iliac crest inferiorly, the external oblique anteriorly, and the latissimus dorsi posteriorly. The roof consists of skin and superficial fascia, whereas the floor is the internal oblique muscle.[3] Lumbar hernias may be congenital or acquired and may occur through one of two lumbar triangles or may occur in a more diffuse nature. The congenital lumbar hernias being the most rare and are often seen with other anomalies[4], acquired hernias may result from infection, previous surgical procedures or from trauma. Knowledge of general anatomical locations, causes and relevant clinical finding of the lumbar hernias may be useful and aid in improved clinical outcomes for radiologist and surgeons.

A CASE REPORT

A 58-year-old man presented came in to Emergency Department at Sangre Grande Hospital with chronic low back pain, but increased from last 2 months. No history of trauma was recalled. He had been previously diagnosed with degenerative disk disease. Physical examination revealed decreased range of vertebral movements there were tenderness and a palpable defect at the upper part of the right iliac crest. Recent imaging studies, both plain film and MRI confirmed several bulging and degenerative lumbar disk. He was referred to a general surgeon who subsequently found a hernia in the region of the left Petit triangle. which was surgically repaired and existing symptoms were resolved.

Figure 1.

Figure 2.

DISCUSSION

Lumbar hernias manifest through two possible defects in the posterior abdominal wall. The superior lumbar triangle of Grynfelt and the inferior lumbar triangle of Petit. Lumbar hernias may be congenital or acquired. Congenital hernias have been noted to arise from the inferior triangle and are often seen with other anomalies like renal agenesis, lumbocostovertebral syndrome.[5 & 6] The causes of congenital hernias have not been completely defined: according Touloukian, a somatic mutation in the first weeks of embryogenesis, caused by transitory anoxia leading to an alteration of muscles and

aponeuroses of the lumbar region may be the underlying cause. This theory is supported by the fact that lumbar hernias are associated with the lumbo-costo-vertebral syndrome in 75% of cases.[7-8]

Spontaneous herniation is usually the result of raised intra-abdominal pressure and an acquired predisposition such as muscle atrophy due to polio, obesity, old age or debilitating disease.[9] The hernia may contain retroperitoneal fat, kidney, colon or less commonly small bowel, omentum, stomach, ovary, spleen or appendix.[10]

Symptmatically frequently consists of only lower back pain. Small hernias may be asymptomatic except for a palpable mass. In less than 10% of cases, the onset is acute with bowel obstruction.[11 &12] Physical examination plays a very important role in diagnosis. There have been reported cases of lumbar hernias misdiagnosed as lipomas[13] or even a gluteal abscess.[14] Patient may present with low back ache or a specific point of pain over the region of the hernia.[15] A palpatory finding of a swelling with cough impulse that reduces in prone position clinches the diagnosis. A challenge for clinical diagnosis is seen with obese patients. Confirmation of this condition frequently requires imaging studies, a CT scan being the study of choice.

CONCLUSION

Anatomical knowledge of lumbar region is very important to understand lumbar hernias. They may occur through the superior or inferior lumbar triangles of the posterior abdominal wall. A radiological exploration either by CT or MRI confirms the correct diagnosis and can rule out possible lumbar lipomas.

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