

CASE REPORT

Intermuscular Lipoma: A Case Report

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Abstract

Lipomas are the most common type of soft-tissue tumors. Superficial lipomas account for about 50% of all soft-tissue tumors and are usually found in the upper back, neck, proximal extremities, and abdomen. Deep-seated lipomas are far less common and usually found in the lower extremity, trunk, shoulder, and upper extremity. In our study we report a case of a deep-seated, intermuscular lipoma with a rare location in the erector spinae musculature of the lower back. This mass was found during a routine dissection of a 68-year-old male cadaver and it serves to expand knowledge on the anatomical aspects of rare intermuscular lipoma locations. On gross examination, the lipomatous mass was seemingly circumscribed with a uniform, yellowish adipose color, lobulated surface, and soft consistency. Histological examination exhibited a discrete mass of uniform, mature adipocytes, which are clearly delineated from the surrounding musculature.

These findings are diagnostic of a well-circumscribed intermuscular lipoma. It is important to note that these lesions are benign and have no metastatic potential. Knowledge of rare intermuscular lipoma locations is necessary for clinicians and surgeons during diagnostic and therapeutic procedures. It is necessary that current clinical guidelines take rare variants into consideration.

Introduction

Lipomas are the most common type of soft-tissue tumors. There are 9 benign lipomatous musculoskeletal masses, and lipomas account for almost 50% of them [1]. These tumors can be further categorized as superficial or deep-seated. Superficial lipomas are very common, accounting for about 50% of all soft-tissue tumors and are usually found in the upper back, neck, proximal extremities, and abdomen. Deep-seated lipomas are far less common and usually found in the lower extremity, trunk, shoulder, and upper extremity [1-3]. Intramuscular and intermuscular lipomas, which are of the deep-seated type, have been reported to compromise 1.8% and 0.3% of all fatty tumors, respectively [4]. Due to their benignity, deep location, and usually asymptomatic presentation, these lipomas may grow to large sizes before detection [5]. In our case report we describe an intermuscular lipoma with a rare location in the erector spinae musculature of the lower back.

Case Information

During a routine dissection of a 68-year-old male cadaver, a deep-seated lipomatous mass measuring 7cm X 3cm X 3cm was noted on the right side, dorsolateral to the lumbar spine at the level of the L4 and L5 vertebrae. The donor was Caucasian, and the cause of death was identified as Primary Hepatocellular Carcinoma, unrelated to the lipomatous mass. Other notable medical conditions included hypertension, cataracts and history of seizures and aneurysm. On gross examination, the lipomatous mass was seemingly circumscribed with a uniform, yellowish adipose color, lobulated surface, and soft consistency. Histological

examination exhibited a discrete mass of uniform, mature adipocytes, which are clearly delineated from the surrounding musculature. All of these findings are diagnostic of a well-circumscribed intermuscular lipoma (Figures 1, 2 & 3).

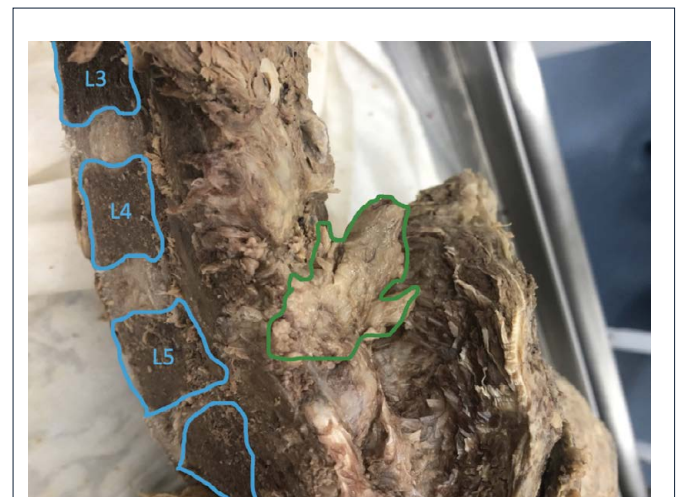


Figure 1: A medial view of the hemisected lumbosacral junction with the intermuscular lipoma (green) intact. The mass can be seen to be located dorsolateral to the lumbar spine at the level of the intervertebral disc between L4 and L5 vertebrae (blue).

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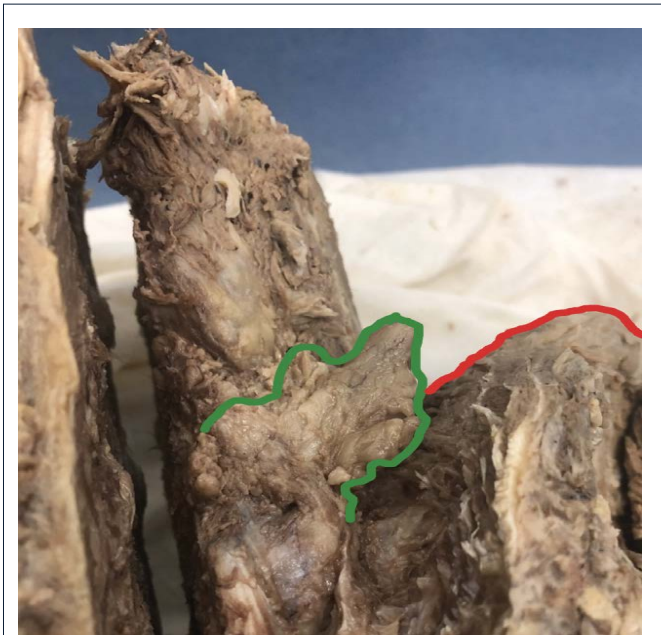


Figure 2: A posterior view of the hemisected pelvis is shown with the intermuscular lipoma (green) still intact. The mass has superolateral directionality, protruding toward the iliac crest (red).

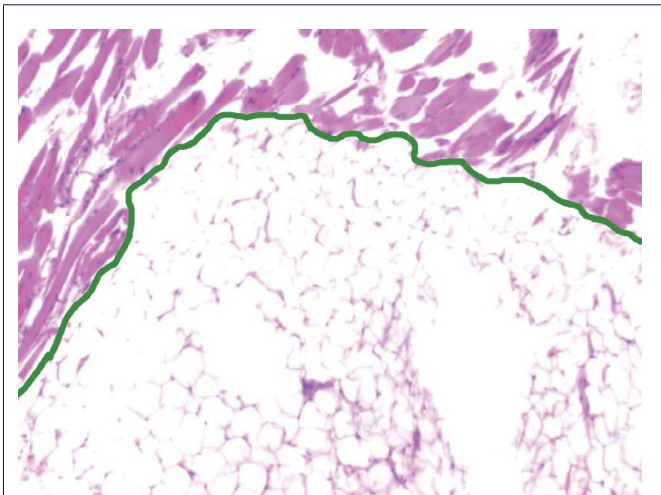


Figure 3: A histological image of the intermuscular lipoma (below green line) showing no infiltration of the surrounding musculature (above green line).

Discussion and Conclusion

This case report serves to expand knowledge on the anatomical aspects of rare intermuscular lipoma locations. The etiology and pathogenesis of these lipomas remains unclear, but it is likely that they originate from multipotent mesenchymal cells and have neoplastic pathogenesis. It has also been proposed that they may have reactive pathogenesis, including etiologies

such as trauma, chronic irritation, obesity, developmental disorders, and genetics [6-9]. These lipomas often remain undetected because of their deep-seated location and usually asymptomatic presentation. It is also important to note that these lesions are benign and have no metastatic potential. Knowledge of rare intermuscular lipoma locations is necessary for clinicians and surgeons during diagnostic and therapeutic procedures. It is necessary that current clinical guidelines must take rare variants into consideration.

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