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CASE REPORT

Intramuscular myxoma: unusual observation of spontaneous tumor size shrinkage

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Abstract
Soft tissue tumors, whether benign or malignant, may grow over time or remain stable, but they usually do not spontaneously decrease in size. However, there are exceptions, such as inflammatory conditions, desmoid tumors, or benign cysts. Intramuscular myxomas are benign soft tissue tumors that typically present as a solitary, slow-growing, painless mass. They are generally treated by surgical resection, after which recurrence is rare. Here, we present a brief series of three unusual cases of intramuscular myxomas that spontaneously decreased in size. They were located in the cervical region, the right lower extremity, and the paravertebral lumbar region. Imaging findings and percutaneous biopsies confirmed the diagnosis in all cases. Follow-up imaging showed a spontaneous reduction in lesion volume over time, far exceeding the amount of tissue sample removed during biopsy. This unusual observation of spontaneous shrinkage may call into question the subsequent therapeutic approach to these lesions.

Keywords Soft tissue neoplasm · Myxoma · Magnetic resonance imaging · CT imaging · Biopsy · GNAS

Introduction

Intramuscular myxomas (IMs) are benign soft tissue tumors that do not undergo malignant transformation or metastatic spread [1, 2]. They typically present as solitary, slow-growing masses, most commonly found within the skeletal muscle fibers of the thigh, shoulder, buttock, and upper arm [1, 3, 4]. Occasionally, they may cause functional problems[5]. IMs predominantly affect middle-aged individuals between the ages of 30 and 70 and are more common in women [1, 4]. When multiple, they may be associated with fibrous dysplasia of bone, a condition known as Mazabraud's syndrome [6–8].

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