

Images of Interest / Imagens de Interesse

## Posterior Thigh Swelling Caused by an Intramuscular Myxoma

### *Tumefação na Face Posterior da Coxa Causada por um Mixoma Intramuscular*

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Received: 27/10/2025  
Accepted: 14/03/2026  
Published: 23/04/2026



#### Abstract

Intramuscular myxomas are rare benign soft tissue tumors presenting insidiously, often with nonspecific symptoms. We report a case of a 46-year-old patient with chronic painful swelling of the right posterior thigh. MRI findings, histopathological correlation, and differential diagnostic considerations are discussed.

#### Keywords

Soft tissue tumor; Musculoskeletal myxoma; Benign tumor.

#### Resumo

Os mixomas intramusculares são tumores benignos de tecidos moles raros, de apresentação insidiosa e sintomas frequentemente inespecíficos. Descrevemos o caso de um doente de 46 anos com tumefação dolorosa crónica na face posterior da coxa direita. Os achados de RM, a correlação histopatológica e as considerações diagnósticas diferenciais são discutidos.

#### Palavras-chave

Pelve renal; Extravasamento urinário; Meio de contraste iodado.

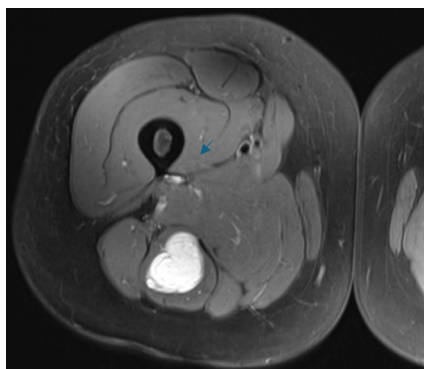
## Case

A 46-year-old patient presented with a two-year history of a mobile, non-adherent, painful lump on the right posterior thigh, aggravated by walking and sitting, and associated with mild discomfort on hamstring stretching. The patient's only comorbidity was hypertension managed with lisinopril, and there were no allergies.

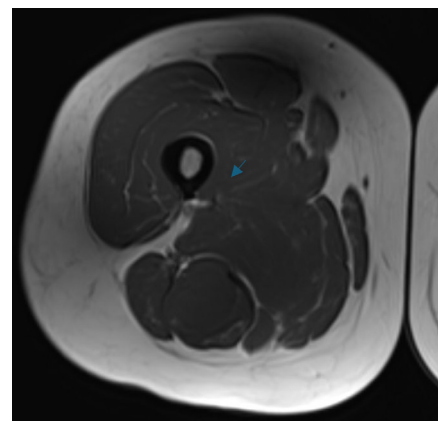
Imaging with MRI revealed a well-circumscribed, oval intramuscular lesion within the proximal body of the semitendinosus muscle, measuring  $3.1 \times 3$  cm (axial) and 5.6 cm (cranio-caudal). The lesion exhibited high signal intensity on fluid-sensitive sequences (fig. 1), with subtle

internal septations, and low signal on T1 (fig. 2). Adjacent foci of edema and lipomatous changes (fig. 3) suggested slow growth. Features were suggestive of intramuscular myxoma. There was no evidence of hamstring or myotendinous rupture, hematoma, sciatic nerve involvement, or bone or joint abnormality.

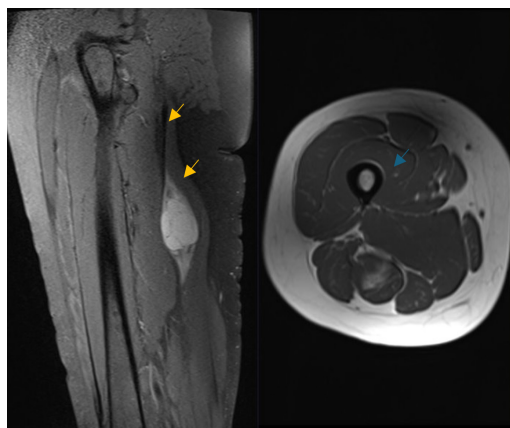
Surgical excision of the lesion was performed, with histopathological confirmation of intramuscular myxoma. The benign nature of the lesion was explained to the patient. Postoperative residual complaints were related to the intramuscular intervention; rehabilitation with physical medicine was recommended to restore function. Follow-up MRI showed no local recurrence.



**Figure 1** – Proton density fat-saturated axial MRI image. A well-defined, oval nodular lesion (arrow) is observed in the proximal third of the semitendinosus muscle. The lesion demonstrates high signal intensity on fluid-sensitive sequences, with fine linear hypointense septations.



**Figure 2** – T1 axial MRI image. The lesion (arrow) in the proximal third of the semitendinosus muscle demonstrates homogeneously low signal intensity, consistent with T1 hypointensity typical of intramuscular myxoma.



**Figure 3** – Proton density fat-saturated sagittal MRI image and T1 axial MRI image. Small foci of edema (orange arrows) and muscle lipomatous infiltration (blue arrow) are observed adjacent to the poles of the lesion, suggesting slow growth.

## Discussion

Intramuscular myxoma is a rare benign mesenchymal tumor composed of stellate and spindle cells embedded in a myxoid stroma rich in mucopolysaccharides.<sup>1,2,3</sup> It most commonly affects middle-aged adults, with a slight female predominance, and typically arises in large skeletal muscles of the thighs, shoulders, or buttocks.<sup>1,2</sup> Although often asymptomatic, some patients may experience a palpable or painful swelling, as in this case.<sup>3</sup>

MRI plays a crucial role in the diagnosis by showing a well-defined, homogeneous lesion that appears hypointense on T1-weighted sequences and hyperintense on T2-weighted or fluid-sensitive sequences, sometimes with thin internal septations or mild perilesional edema, suggesting slow and benign growth.<sup>1,2</sup> A thin rim of fat (“fat cap” sign) or

surrounding muscle edema may also be observed, which helps distinguish it from more aggressive lesions.<sup>1</sup>

Histologically, intramuscular myxomas demonstrate hypocellular myxoid tissue without atypia or mitotic activity, separated by sparse collagen fibers - features confirming their benign nature.<sup>2,3</sup>

Differential diagnoses include:

- Myxoid liposarcoma, which tends to show more heterogeneity, nodular enhancement, and ill-defined margins.
- Intramuscular hemangioma or cystic lesions (such as chronic hematoma or ganglion cyst), usually with more fluid–fluid levels or peripheral enhancement.
- Neurogenic tumors (schwannoma or neurofibroma), which may display a nerve entering/exiting the lesion and the “target sign.”
- Lipoma with myxoid degeneration, which presents higher fat content than typical myxomas.

Mazabraud syndrome, characterized by the coexistence of intramuscular myxomas and fibrous dysplasia, should also be considered when multiple lesions or bone abnormalities are present.

Surgical excision is the treatment of choice. Recurrence is uncommon but may occur if excision is incomplete.<sup>3</sup> Postoperative rehabilitation is essential for restoring muscle strength and preventing fibrosis. Prognosis is excellent.

## Conclusion

Chronic, painless or mildly painful posterior thigh swelling should prompt MRI evaluation to exclude soft tissue neoplasms. Intramuscular myxoma is benign and effectively treated with surgery and rehabilitation, enabling full restoration of function.

## Ethical Disclosures / Divulgações Éticas

*Conflicts of interest:* The authors have no conflicts of interest to declare.

*Conflitos de interesse:* Os autores declaram não possuir conflitos de interesse.

*Financing Support:* This work has not received any contribution, grant or scholarship.

*Suporte financeiro:* O presente trabalho não foi suportado por nenhum subsídio ou bolsa.

*Confidentiality of data:* The authors declare that they have followed the protocols of their work center on the publication of data from patients.

*Confidencialidade dos dados:* Os autores declaram ter seguido os protocolos do seu centro de trabalho acerca da publicação dos dados de doentes.

*Protection of human and animal subjects:* The authors declare that the procedures followed were in accordance with the regulations of the relevant clinical research ethics committee and with those of the Code of Ethics of the World Medical Association (Declaration of Helsinki).

*Proteção de pessoas e animais:* Os autores declaram que os procedimentos seguidos estavam de acordo com os regulamentos estabelecidos pelos

responsáveis da Comissão de Investigação Clínica e Ética e de acordo com a Declaração de Helsínquia da Associação Médica Mundial.

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