

Foreign Body Reaction Mimicking Sarcoma

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Abstract: Foreign body reaction can sometimes mimic the features of sarcoma. A 42-year-old patient was referred to our department for a rapidly growing subcutaneous mass in the posteromedial aspect of the lower leg. Ultrasonography and magnetic resonance imaging were highly suggestive for soft tissue sarcoma. The patient underwent surgical resection. The histopathologic diagnosis found that the supposed sarcoma was an inflammatory pseudo-tumor, also referred to as “gossypiboms”. Surgeons must be aware that, in some cases, the imaging cannot reliably distinguish between sarcoma and foreign body reaction. (*Plast Reconstr Surg Glob Open* 2017;6:e1612; doi: 10.1097/GOX.0000000000001612; Published online 22 December 2017.)

A 42-year-old patient was referred to our department for a rapidly growing subcutaneous mass in the posteromedial aspect of left lower leg. The mass was hard and barely movable, with consensual movement during muscle contraction. No cutaneous involvement was found, and a small scar was reported at physical examination, although not overlying the lesion. Ultrasonography was diagnostic for a vascularized lesion with calcifications and soleus fascia disruption. The magnetic resonance imaging (MRI) report described a “solid and calcific focal lesion of 15×11 mm inside the soleus muscle, perilesional edema, and phlogosis with homogeneous contrast enhancement; superficial to the lesion, liponecrotic area and cranial to the lesion, arterovenous malformation” (Fig. 1). The clinical case and the imaging underwent multidisciplinary evaluation by an oncologist, a radiologist, and a plastic surgeon: they were found to be highly suggestive for soft-tissue sarcoma. According to guidelines, en bloc resection of the lesion was performed with oncologically adequate margins in the soleus muscle. A few days later, the histopathologic diagnosis was available: the supposed sarcoma was a ceramic foreign body inside the muscle, surrounded by inflammatory reaction. The patient was questioned again about any previous trauma, and, once the diagnosis was communicated, he referred that sev-



Fig. 1. A, Transverse plane, precontrast; (B) transverse plane, postcontrast; (C and D) sagittal plane, postcontrast.

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eral years before he was shot with a soft-air bullet but he had not realized that it had penetrated. We subsequently analyzed the literature and found that foreign body reaction can sometimes mimic the features of sarcoma.

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The current body of evidence mainly focuses on postoperative cases induced by retained foreign bodies, resulting in inflammatory pseudotumors also referred to as “gossypibomas.” Surgeons must be aware that, in some cases, MRI cannot reliably distinguish between sarcoma and foreign body reaction.

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