LETTER

Management of Recurrent Ischemic Fasciitis, a Rare Soft Tissue Pseudosarcoma

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Ischemic fasciitis, also termed atypical decubital fibroplasia, is considered a pseudosarcoma that usually presents as a painless mass in areas overlying bony prominences [1]. Historically, ischemic fasciitis is thought to be a condition that occurs only in the elderly and debilitated because of direct pressure on bony prominences. However, recently, ischemic fasciitis has also been detected in mobile young individuals [1,2]. Epidemiological studies have revealed a predominance of this condition in patients in their 70s and 80s [1]. Common sites of occurrence are the limb girdles, sacrum, greater trochanter, and shoulders. The other locations described include the buttocks and the posterior chest wall. Isolated lesions have also been reported in skeletal muscle [3]. Upon histological analysis, ischemic fasciitis is noted to involve the entire depth of the subcutis, including the deep dermis, muscle, and tendon. Ischemic fasciitis is characterized by a "pseudosarcomatous proliferation of fibroblasts and myofibroblasts with a central area of fibrinoid degeneration surrounded by granulation tissue" [1]. The granulation tissue is characterized by capillary growth and plump endothelium. Further, the fibroblasts are enlarged mimicking ganglion cells [3]. Similar entities include nodular fasciitis and proliferative fasciitis. In the case of nodular fasciitis, also known as infiltrative fasciitis, lesions grow rapidly and are located typically on the volar aspect of the forearm, chest, and back. These lesions have dense cellularity with immature fibroblasts and are generally less than 3 cm in diameter [3]. In proliferative fasciitis, lesions affect the upper and lower extremities, including most commonly, the forearm, thigh, and shoulder girdle. Upon histological analysis, lesions demonstrate a mixture of proliferating cells including spindle and stellate fibroblasts, as well as ganglion-like cells. However, proliferative fasciitis lacks the central area of fibrinoid deposition and capillary growth [3]. Primary therapy for ischemic fasciitis is surgical resection, and recurrence has been reported to be limited in most studies [1,4]. We report a case of recurrent ischemic fasciitis treated successfully with bony debridement and myofascial advancement flap closure. The patient presented with pain and a firm mass in the region of the coccyx. Her history was significant for immobility resulting from transverse myelitis, a disease process leading to spinal cord inflammation from a viral or autoimmune etiology. One year prior to her initial visit, the patient had fallen and developed a sacral mass that enlarged over time causing discomfort. It is uncertain, as with many soft tissue tumors, whether trauma had any relation to the formation of the mass or whether it was noticed because of the attention paid to the area of injury. Magnetic resonance imaging demonstrated a soft tissue mass isodense to muscle on T1-weighted images in the region of the coccyx. Examination revealed a firm but mobile mass palpable at the base of the coccyx near the gluteal cleft. During the initial operation, a wide excision was performed including the involved fascia overlying the coccyx. A layered closure was then performed. The patient's immediate recovery was uneventful. Three months following the excision, the patient had what appeared to be a recurrence on physical exam. This was confirmed on reoperation. After extirpation of the mass, the surrounding tissue that was grossly clear of the tumor was further debrided. This included using a rongeur on the coccyx to create a smooth contour. The medial aspect of the gluteal muscle was undermined at the level of the fascia and advanced across the operative bed to provide additional soft tissue coverage. A histopathologic evaluation showed areas of fibrinoid necrosis surrounded by zones of granulation tissue and ganglion-like myofibroblasts consistent with ischemic fasciitis. This lesion was typical of the ischemic fasciitis described above. Further, polygonal cells with prominent nuclei are usually present as described in our specimen by ganglion-like cells [1]. The presence of granulation tissue also differentiates the lesion from that of proliferative fasciitis. This case is presented because of its uncommon pathology and its rare incidence of recurrence. Physicians should be aware of this suspicious but benign entity and the rare potential for recurrence. Careful consideration should be taken not to confuse this lesion with a sarcoma, which it closely resembles. There was no recurrence after the second operation. Debridement of the coccyx during the second operation may have eliminated the point of pressure. Moreover, the rearrangement of local tissue provided relatively bulky soft tissue coverage.

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