Calcific Tendinitis of the Gluteus Maximus Tendon
(Gluteus Maximus Tendinitis)

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Abstract. Seven cases of calcific tendinitis of the gluteus maximus tendon are presented. Awareness of the precise anatomic location of the calcific deposit is essential for the accurate diagnosis of this uncommon site of tendinitis. Clinically, the presenting complaint is that of pain. In some instances, however, the patients are asymptomatic and the calcification is an incidental finding.

Key words: Calcific tendinitis – Gluteus maximus – Gluteal tubercle – Gluteofemoral bursa

Several locations of tendinitis are well known, but involvement of the gluteus maximus tendon is uncommon. We have found only seven previously reported cases and were unable to find reference to this entity in the standard texts on skeletal radiology. Clinically, most patients with acute gluteus maximus tendinitis present with severe pain in the hip and upper thigh posteriorly. On physical examination focal tenderness is elicited over the gluteal tubercle. We have observed gluteus maximus tendinitis in seven patients. Two complained of sudden onset of severe pain, while three reported mild to moderate pain for a period of weeks to months. Two patients were asymptomatic.

Fig. 1 A, B. Case 1
A Anteroposterior view of the upper right femur reveals an amorphous cluster of calcification overlying the lateral cortex and a portion of the medullary cavity (arrows)
B Lateral view shows the calcification to better advantage. The adjacent bone is normal
Case Reports

Case 1
A 48-year-old female was seen in the Emergency Department complaining of severe pain in the right hip and upper thigh of five days duration. Physical examination revealed tenderness at the site of attachment of the gluteus maximus tendon, and amorphous calcification was demonstrated radiographically (Fig. 1 A and B). Relief was obtained with the injection of steroids and xylocaine.

Case 2
A 62-year-old woman complained of moderate left upper thigh pain for eight weeks. There was tenderness over the gluteal tubercle and, on radiographic examination, an area of amorphous calcification was found in the gluteus maximus tendon. A bone scan demonstrated intense localized uptake in the area of calcification (Fig. 2A–C). She received two injections of steroids and xylocaine four weeks apart. Her pain was relieved and she has been asymptomatic since.

Case 3
For three months prior to admission a 36-year-old physician complained of pain and discomfort in the upper thigh distal to the greater trochanter. He was tender to palpation over the gluteal tubercle and calcification was identified on radiographic examination (Fig. 3). Because of the possibility of a tumor, the lesion was biopsied. The specimen obtained from the insertion of the gluteus maximus tendon consisted of fragments of fibrotendinous tissue that were distorted by irregular areas of fibroblastic proliferation, some of which supported foci of calcification. The microscopic findings were consistent with tendinitis. The patient has subsequently been free of pain.