Clinical History:

The patient is a 66-year-old man who presented with a “large palpable mass” of the right thigh, which had been present for approximately one year, without apparent enlargement during that time. When he first noticed it, he thought he may have “pulled a muscle” while exercising. Since it did not seem to be resolving, MR was performed, showing a mildly infiltrative, increased T2 signal and enhancement in the rectus femoris muscle, extending approximately 6cm craniocaudal. This was interpreted as a possible muscle strain or contusion. A fine needle aspirate revealed “atypical cells possibly consistent with inflammation”.

At operation, the surgeon found a 3.5cm “ball” of distinctly abnormal tissue within the muscle belly, but surrounded by a loose areolar plane. The abnormal tissue was excised.

Material submitted: 1 H&E slide of formalin-fixed, paraffin embedded skeletal muscle

Points for discussion:

1. Differential diagnosis
2. Pathogenesis
3. Prognosis