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## Leg Injury – World Champion Super-Heavyweight Weightlifter

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**HISTORY:** A 41-year-old male Bulgarian was lifting in a Masters Championship in Barcelona in the 105+kg weight class. The first series was the snatch with his first attempt at 115 kg (~254 lbs.) going well and without pain. On his second attempt at 121 kg (~267 lbs) he experienced some anterior left thigh pain. He attempted the third at 126 kg (~278lbs) unsuccessfully. After a short break he attempted the clean and jerk series first at 145 kg (~320lbs) and had a good lift. He attempted his second clean and jerk at 150 kg (~331lbs) at which point his pain increased and he forfeited the last attempt. Overnight at his hotel his pain intensified, and he sought care at a local ER. He was subsequently discharged with no imaging, intervention, or treatment plan. The following morning, he presented to the event medical tent with worsening pain, swelling and difficulty with bearing weight on his left lower extremity.

**PHYSICAL EXAMINATION:** Appreciable difference in thigh size, no erythema with mild lacey bruising over left knee and distal to the knee joint. Right thigh measuring 65cm and left thigh measuring 72cm. Marked tenderness to palpation over the superior quad tendon and over the bodies of the rectus femoris and vastus lateralis. Limited hip and knee flexion, with endorsed pain in anterior thigh and superior aspect of patella. Sensation intact, Palpable femoral, DP, PT pulses.

**DIFFERENTIAL DIAGNOSIS:** 1. Quadriceps hematoma 2. Superior patella avulsion fracture 3. Quadriceps tendon tear 4. Morel-Lavallee Lesion 5. Evolving thigh compartment syndrome

**TEST AND RESULTS:** Plain film showed superior pole avulsion fracture of the left patella and soft tissue swelling suggestive of hematoma. MRI obtained 4 days following evaluation indicated significant diffuse edematous changes of muscle and fascia with interstitial hematoma and evidence of muscle body rupture of the Vastus Lateralis

**FINAL/WORKING DIAGNOSIS:** Left Vastus lateralis rupture with avulsion fracture of the superior pole of the patella

**TREATMENT/OUTCOMES:** Sent back to ER, radiograph obtained, placement in a long leg splint and LMWH given. Inability to obtain better imaging in Spain due to cost. Orthopedic evaluation upon return to Bulgaria within 4 days of injury with subsequent MRI. Patient treated conservatively with rehab and no surgical intervention.