TRAUMA CASE OF THE WEEK

Case Two

A 24 year old man is brought into the ED with an injury suffered playing touch rugby. He tried to stop and turn suddenly just as another player collided with him. He is coming in to the unit because of the subsequent ruptured spleen, but he also felt immediate right knee pain and has only been able to hobble a few steps since.

- What abnormality can be seen on the radiograph?
- Explain the significance of this Xray finding
- What treatment is required?



The Xray findings are subtle and consist of a fine bone fragment (about 10mm long and up to 4mm wide) seen at the border of the upper part of the lateral tibial plateau. This is a so called "Segond" fracture. This unimpressive radiographic finding doesn't reflect the severity of the underlying knee injury. The mechanism of the Segond fracture is a combination of bowing and twisting (technically a combination of varus stress and internal tibial rotation) of the knee. The bone fragment seen is an avulsion fracture from the lateral ligament complex, but the real significance is that there are usually also injuries to the anterior cruciate and medial meniscus. So, it represents a major knee joint disruption with potential for significant instability. A missed anterior cruciate injury can have life-long implications, leading to chronic instability and pain ... so the presence of a Segond fracture should set a bomb off in our heads! Such patients should have an early orthopaedic referral, and likely to require an MRI.