



Case study within the ICSC07 Spine Injuries in Sport Lumbar spine

This is a real case study to help you bring all the knowledge together. This case study is for your own benefit and NOT MARKED.

Case study provided by Dr Mustafa Agaoglu

In the following case study, you will be following an elite ironman athlete. As you go along, you will be given information about the patient. You will also be asked to answer a series of questions about the patient.

Pre-History Question: 3 months into his ironman training, getting ready for the 2018 Frankfurt Ironman championships, this elite triathlete, slipped and fell on his left buttock. At the time he was on the training bike practicing his bicycle to running transition.

2-3 weeks post injury he began to develop a right knee joint lock during his run sessions. His condition was persistent for the following 5 weeks, when he presented to you as the chiropractor for assessment and treatment.

Question 1:

Based on the limited history provided to you, list 10 differential diagnoses for this athlete.

Initial Examination

- Painful to attempt to stand up from a full squat position.
- Tender to direct pressure/palpation of the area of complaint.
- Positive Trendelenburg test. Leg length discrepancy of 3cm was also observed.

Question 2: Based on the brief initial examination, jot down how your examination would proceed. Describe which orthopedic, neurological and functional tests you would perform at this time.

Further Examination Information :

- Based on your neurological examination, you found no neurological deficits.
- Orthopedic examination reveals no other positive tests.

Question 3: Based on your examination findings and the persistent nature of the injury, you decide to order further diagnostic imaging. Which advanced diagnostic imaging would you recommend at this time? Why would you recommend these further tests?

Reflect on your answers above and your overall performance on this case study.

What, if anything, would you do differently if this had been your patient?

Imaging :

MRI of the involved knee differentiated any knee conditions.

Ultrasound of the right ITB was performed. Inflammation and tissue thickening was observed over the lateral knee area.

Jot down your treatment plan for this athlete. Be as specific as possible, based on the diagnosis you have been given.

Reflect on your answers above and your overall performance on this case study.

What, if anything, would you do differently if this had been your patient? Below is the treatment plan provided to this athlete and the outcome.

Treatment Plan in Office for 2 weeks, 4 sessions and Daily home therapies and rehab

We had him stop running for two weeks. Instead he did elliptical bicycle within pain free range. He iced the lateral aspect of his knee following all of his train sessions. We performed manipulative treatments on a drop table to treat the pelvis to an improved biomechanical state.

We also worked on strengthening the hip abductors with lateral side steps, side leg lifts and one legged squats. He was instructed to use foam roller at his own discretion as home therapy.

He was back in shape to finish his full ironman just under 8 hours. He completed the marathon leg in 2 hours and 49 seconds without any problems.