

ED QUICK QUIZ

WHAT IS THE DIAGNOSIS?

BACKGROUND

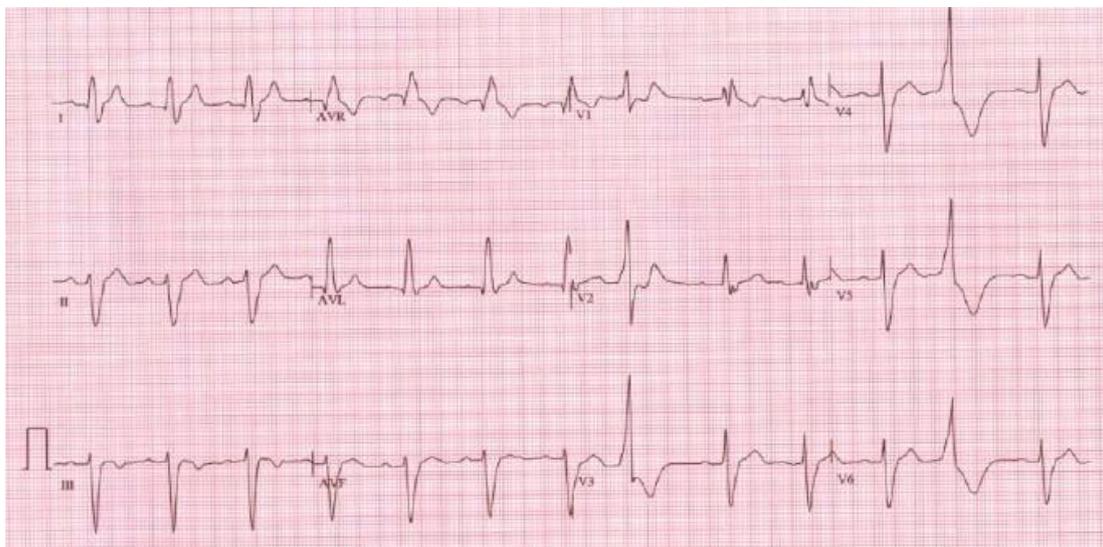
A 70 year old man presents to the emergency department with pain in his left groin and hip following a fall 4 days ago. He tells you "I think I've just bruised myself" and has been walking on it since, though his daughter, who insisted he come to A&E, tells you he is putting a brave face on the pain.

When you ask about the cause of the fall he says he blacked out while walking. There was no warning and there was no prolonged confusion on waking. His only other symptom has been an intermittent "dizziness" which has no clear precipitant.

Past medical history includes ischaemic heart disease and hypertension.

Neurological and cardiovascular examination is normal. His left leg shows no deformity and he is walking, albeit with an antalgic gait. He is tender over the anterior hip and there is pain on internal/external rotation with limitation of the range of motion.

Given his blackout, you do an ECG which looks like this:

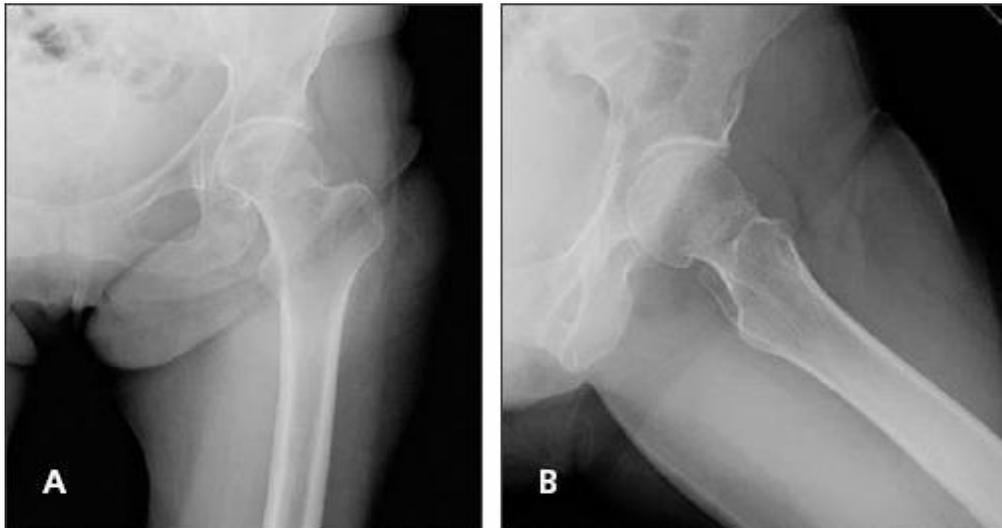


QUESTIONS

1. How satisfied are you that this patient has "just bruised something"?
2. This patient has suffered a transient loss of consciousness. What do you think has caused it?
3. How will you manage this patient?

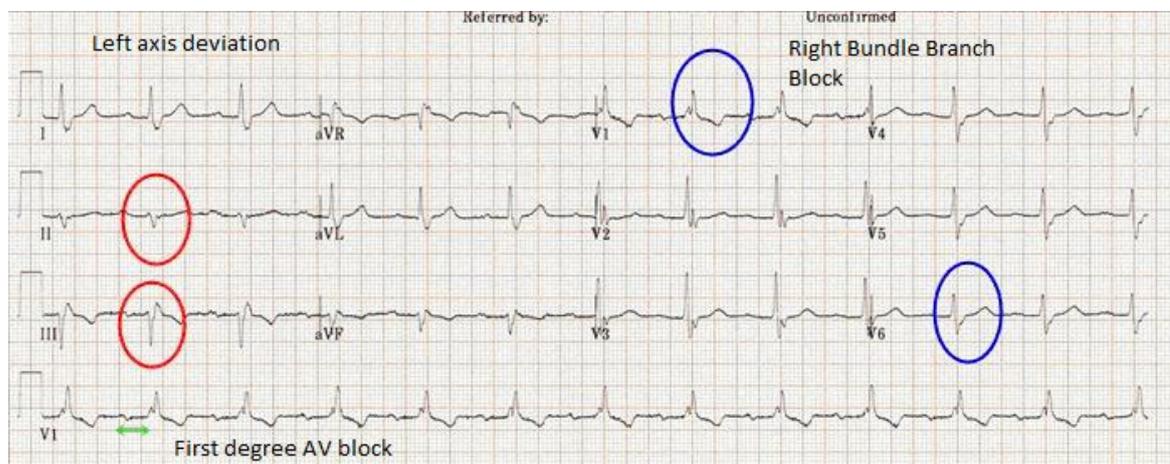
ANSWERS & DISCUSSION

1. The patient has an impacted neck of femur fracture:



Patients try to downplay their symptoms for a number of reasons – fear, stoicism or just not wanting to be a bother. Remember that elderly patients sustain significant injuries from low force mechanisms, and some patients with impacted neck of femur fractures remain mobile – always X-ray the hip in an elderly person with hip pain following trauma.

2. The ECG shows incomplete trifascicular block:



- Trifascicular block occurs when the right bundle branch, left anterior and posterior fascicles of the left bundle branch become blocked to varying degrees.
- **If all three are completely blocked 3rd degree AV block is the result.**
- 3rd degree AV block may be intermittent, reverting to less severe blocks like incomplete trifascicular block between episodes.
- Progression to 3rd degree AV block is relatively rare but the finding of trifascicular block in a patient admitted with syncope should prompt admission for monitoring.

Note: Features associated with cardiogenic syncope include the following:

- Sudden onset.
- Palpitations followed by syncope.
- During exertion or when supine.
- Family history of unexplained death.
- History of heart disease.
- Abnormal ECG.

3. Management:

This patient has two issues requiring management – a **fractured neck of femur** and a **cardiogenic syncope**. In the presence of potentially serious heart disease his impacted, stable fracture will likely be managed conservatively. The priority is his medical management.

A reasonable plan would be:

- **ABCDE assessment.**
- **Cardiac monitoring.**
- **Blood tests** (in this case checking potassium would be especially relevant as hyperkalaemia is one of the reversible causes of trifascicular block/complete heart block. Other electrolyte abnormalities, anaemia, acute kidney injury and thyroid function abnormalities would also be significant findings in a patient with transient loss of consciousness).
- **Group and save.**
- **CXR** (are there signs of structural heart disease?).
- **Referral** to the medical/cardiology team for further management.
- Discussion with orthopaedics to determine plan for #NOF.

Remember – elderly patients often have multiple issues which need to be balanced, they are more likely to sustain significant trauma and they are often less able to give an accurate history due to delirium, dementia or other cognitive impairment. Your bog standard neck of femur fracture as likely to be the result of coexisting sepsis, postural hypotension or a stroke as it is to be a mechanical fall.