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CASE REPORT

Life threatening liver disease during treatment with monoclonal antibodies

A 66 year old man with an exacerbation of erythrodermic psoriasis despite several weeks of treatment with efalizumab, a recombinant humanised monoclonal antibody that binds to CD11a and acts as an immunosuppressant, was treated with adalimumab, a fully humanised monoclonal antibody that binds and deactivates tumour necrosis factor α (TNF α). Before starting treatment tuberculosis was excluded. The patient had no risk factors for infectious diseases and had never received blood products.

Ten days after starting adalimumab, the patient developed jaundice. Blood tests showed the presence of the surface antigen of the hepatitis B virus (HBV) and higher than normal values of alanine aminotransferase (9.14 μ kat/l; normal value <0.85 μ kat/l), γ glutamyl transferase (2.92 μ kat/l; <1.1 μ kat/l), alkaline phosphatase (2.19 μ kat/l; <2.15 μ kat/l), and bilirubin (155 μ mol/l; <20.5 μ mol/l). Despite appropriate treatment, he developed progressive coagulopathy (international normalised ratio 2.5), and his serum bilirubin increased to more than 40 times the upper limit of normal (809 μ mol/l; <20.5 μ mol/l). The coagulopathy normalised over four weeks, whereas bilirubin normalised only after months of effective treatment. Fortunately, the patient did not clinically decompensate during this period of severe liver injury.

Questions

- 1 What is the diagnosis?
- 2 In which setting does this occur most often?
- 3 What is the reason for this acute presentation?
- 4 What are the treatment options?
- 5 How could this event have been prevented?

Submitted by Thorsten Kaiser, Joachim Moessner, Keyur Patel, John G McHutchison, and Hans L Tillmann

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PICTURE QUIZ

Jaundice and malaise in a middle aged man

A 52 year old man was referred to the jaundice hotline clinic by his general practitioner with symptoms of malaise and lethargy over one year and a seven day history of jaundice. Apart from a laparoscopic cholecystectomy eight years earlier, he had no other relevant medical history and took no drugs. On examination, he was jaundiced but had no other abnormal physical signs.

His laboratory findings were: bilirubin 135 μ mol/l (normal range 3-17), alkaline phosphatase 971 U/l (3-110), alanine aminotransferase 154 U/l (3-35), albumin 35 g/l (35-45).

Ultrasound of the liver showed coarse echotexture and no intrahepatic biliary duct dilatation. Views of the common bile duct were poor owing to overlying bowel gas.

The patient went on to have endoscopic retrograde cholangiopancreatography as an outpatient.

Questions

- 1 What is the diagnosis?
- 2 What further investigations should he have?
- 3 What treatment options are available?

Submitted by Helen J Fellows and Harry R Dalton

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STATISTICAL QUESTION

Normal distribution

Which, if any, are true of a normal distribution?

- a) It is symmetrical
- b) The mean is equal to the median
- c) The mean is equal to the mode
- d) The skewness is positive

Submitted by John Fletcher

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QUIZ: THE SPINE

To enter the quiz, go to www.onexamination.com/endgames. The answers will be available immediately. The quiz closes at midnight on Wednesday.

Here's one question from this week's quiz on orthopaedics taken from the MRCPCH Part 1 B.

A 15 year old boy lands awkwardly following a physical challenge in football, causing flexion to his neck. He is not knocked out, but complains of neck pain. He had a full term normal delivery with no neonatal problems, all his immunisations are up to date, and he has no social or family history of note. On examination the temperature is 36.7°C, respiratory rate 12/min, and heart rate 65/min.

He complains of posterior midline lower cervical pain and tenderness. What is the most important element of management?

- Cervical spine computed tomography scan
- Cervical spine magnetic resonance imaging
- Cervical spine stabilisation
- Cervical spine x ray

