

FOR SHORT ANSWERS

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FOR LONG ANSWERS

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ENDGAMES

We welcome contributions that would help doctors with postgraduate examinations
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PICTURE QUIZ An 80 year old woman who fell in her home

An 80 year old woman was brought to the hospital after falling in her home. She stumbled and landed on her right hip on her way to the bathroom. After the fall she could not get up because of hip pain and inability to control her right leg. She managed to crawl to the telephone and call her daughter. Clinical examination showed shortening and external rotation of the right leg, inability to actively move the leg, and pain, especially groin pain, on passive movement.

She lived independently in a two storey house with the bedroom upstairs. She had been a smoker for 50 years and had hypothyroidism, which had been treated with levothyroxine substitution for more than 20 years. Hypertension was treated

with enalapril 5 mg daily and pravastatin 40 mg daily, and she took citalopram 20 mg daily for depression. In the winter of 2004 she had sustained a left side trochanteric fracture after falling on a slippery pavement. She was then operated on with a sliding hip screw and plate.

We obtained an anteroposterior radiograph of the pelvis and a lateral radiograph of the right hip.

- 1 What is the diagnosis?
- 2 What treatment would you recommend?
- 3 How could this have been avoided?
- 4 Is she a typical patient for this condition?
- 5 What surgical and other complications may be a concern?

Submitted by Frede Frihagen, Lars Nordsetten, and Roald Bahr
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STATISTICAL QUESTION

Random allocation III

A randomised controlled trial investigated the effectiveness of immobilisation after intrauterine insemination. Couples were recruited if the woman needed intrauterine insemination for unexplained subfertility or for subfertility related to cervical factors or male subfertility. A total of 391 couples were recruited from seven teaching hospitals in Holland. Couples were then categorised according to the age of the woman (18-34 or 35-43 years). For each age category at each hospital, couples were randomly allocated either to 15 minutes of immobilisation or immediate mobilisation (control intervention) after intrauterine insemination.

Which of the following statements, if any, are true?

- a) Couples were allocated to treatment using stratified random allocation
- b) Couples were allocated to treatment using restricted random allocation
- c) Each couple had an equal probability of being allocated to the 15 minutes of immobilisation or immediate mobilisation group
- d) The sample of 391 couples was a random sample from the population of similar couples in Holland

Submitted by Philip Sedgwick
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ON EXAMINATION QUIZ Tuberculosis

The answers to this question, and more questions on this topic, are available from www.onexamination.com/endgames until midnight on Wednesday.

This week's quiz is on tuberculosis and is taken from the OnExamination revision questions for the MRCP parts 1 and 2 and the MRCGP exams.

A 21 year old Asian medical student presented to the emergency department with a month long history of fever, night sweats, and a cough that produced purulent sputum.

On examination, he was febrile (38.5°C), and his pulse was 110 beats/min and respiratory rate was 22 breaths/min. Coarse crackles were heard over the right lung apex. Chest radiography showed right upper lobar consolidation with a single cavitating lesion.

Investigations showed:

Haemoglobin 115 g/l
(normal range 130-180)
White cell count $12.5 \times 10^9/l$ (4-11)
Platelets $425 \times 10^9/l$ (150-400)
Serum sodium 140 mmol/l (137-144)
Serum potassium 4.2 mmol/l (3.5-4.9)
Serum urea 3.1 mmol/l (2.5-7.5)
Serum creatinine 76 $\mu\text{mol/l}$ (60-110)
Serum C reactive protein 254 mg/l (<10).

A sputum sample showed acid-alcohol fast bacilli.

He was started on anti-tuberculous therapy with rifampicin, isoniazid, pyrazinamide, and ethambutol. Within seven days his fever had settled, he was feeling better, and his inflammatory markers were going down.

He lived with his parents and two sisters. His older sister, who had always lived in the United Kingdom, subsequently had a strongly positive Mantoux test. She felt well; had no symptoms of anorexia, weight loss, fever, night sweats, or cough; and her chest radiograph was normal.

Which one of the following is the most appropriate management for his sister?

- A Arrange to see her in clinic in one month with a repeat chest radiograph and clinical assessment
- B Ignore the Mantoux test because she is physically well and has no signs of active tuberculosis
- C Prescribe a three month course of rifampicin and isoniazid
- D Prescribe quadruple tuberculosis treatment
- E Repeat her Mantoux test after one month