ENDGAMES

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CASE REVIEW

A patient request for some "deprescribing"

A 52 year old man with a history of type 2 diabetes for 14 years and hypertension for nine years presented to his general practitioner. He was a non-smoker with an alcohol intake of eight units a week. He had been experiencing bloating, abdominal pains, and erratic motions for more than a year. Because he drove about 12 000 miles a year for his job he found the loose motions "a real worry." He wondered whether any of his problems might be caused by his drugs and asked if he could cut down on any if they weren't all needed. He admitted to being afraid that his diabetic control might deteriorate and that he might need insulin, like some of his relatives who also had diabetes.

He was taking aspirin 75 mg once daily, metformin 500 mg three times daily, perindopril 4 mg daily, and simvastatin 40 mg at night.

On examination his weight was 108.8 kg (steady at this for 10 years), body mass index was 34.4, waist circumference was 113 cm, and his blood pressure was 130/80 mm Hg (steady at this level for some years). His abdominal examination was normal, except that he had central obesity.

Glycated haemoglobin (HbA_{1c}) was 52 mmol/mol (reference range 0-41), bilirubin was 7 µmol/L (0-20), alanine aminotransferase was 53 U/L (5-37), and γ-glutamyl transferase (GGT) was 59 U/L (0-50). In addition, his estimated glomerular filtration rate was 100 mL/min/1.73m^2 (90-120), total cholesterol was 3.7 mmol/L (desirable ≤4.0), high density lipoprotein-cholesterol was 1.3 mmol/L (›1.0), and triglycerides were 1.3 mmol/L (‹1.7).

1 What syndrome does this patient have?
2 Which of the drugs he is taking would be the most likely to be causing his abdominal symptoms?
3 What are the possible causes of his raised GGT?
4 How could his request to cut down on drugs be handled?

Submitted by David Unwin and Simon Tobin

Patient consent obtained.

Cite this as: *BMJ* 2015;351:h4023

STATISTICAL QUESTIONNN Interpreting hazard ratios

The impact of isoniazid prophylaxis on mortality and tuberculosis in children with HIV was investigated using a double blind placebo controlled trial. The intervention was isoniazid given with co-trimoxazole either daily or three times a week. Control treatment was placebo isoniazid given with co-trimoxazole. The setting was two tertiary healthcare centres in South Africa. Participants were children with HIV aged 8 weeks and older. In total, 277 children were recruited and randomised to the intervention (n=139) or control treatment (n=138).

The primary outcomes included the length of time after randomisation until death from any cause and the length of time after randomisation until the occurrence of tuberculosis. The initial results of the trial were reported after participants had been followed for a maximum of 500 days (median 5.7 months). During follow-up, mortality was significantly lower in the isoniazid group than in the placebo group (8% (n=11) *v* 16% (n=21); hazard ratio 0.46, 95% confidence interval 0.22 to 0.95). Furthermore, the risk of tuberculosis was also significantly reduced in the isoniazid group (4% (n=5) *v* 10% (n=13); 0.28, 0.10 to 0.78). The researchers concluded that for children with HIV, isoniazid prophylaxis has an early survival benefit and reduces the risk of tuberculosis.

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

a) When calculating the hazard ratio of death, it was assumed that the death rate was constant during follow-up for each treatment group
b) The intervention group had a 54% lower risk of mortality than the control group at any time during follow-up
c) The hazard ratio of death is the ratio of the number of deaths in the intervention group to the number in the control group at follow-up
d) The hazard ratio of death provides an estimate of the length of survival

Submitted by Philip Sedgwick and Katherine Joekes

Cite this as: *BMJ* 2015;351:h4631

SPOT DIAGNOSIS

An unusual case of a painful big toe

A 70 year old woman presented because of pain in her right big toe for 10 years. Clinically, there was bony prominence over the condyle of the proximal phalanx (fig 1). Radiography showed cortical thickening with encroachment of the medullary cavity, prominent coarse trabecular markings, and osseous expansion in the proximal phalanx (fig 2). The adjacent bones were normal. What is the diagnosis?

Submitted by Tun Hing Lui and Kwok Fai Tam

Patient consent obtained.

Cite this as: *BMJ* 2015;351:h4533

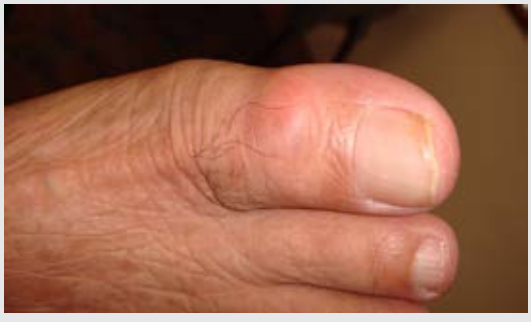

Fig 1

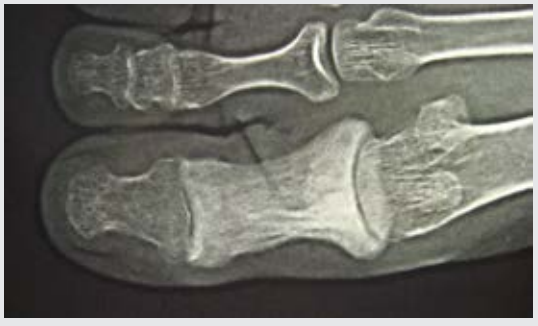

Fig 2