# ENDGAMES

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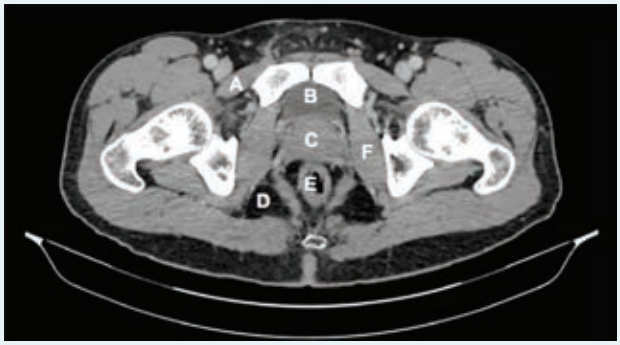
## ANATOMY QUIZ

### Axial computed tomogram of the male pelvis




Identify the structures labelled A, B, C, D, E, and F on this axial computed tomogram of the male pelvis.

Submitted by Lorna Mary Gibson and Tom Nicholas Blankenstein
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## Placebo controlled trials

Researchers assessed the efficacy of varenicline (a licensed cigarette smoking cessation aid) in helping users of smokeless tobacco to quit. A double blind placebo controlled parallel group randomised controlled trial study design was used. The intervention was varenicline 1 mg twice daily. Treatment was delivered for 12 weeks, with 14 weeks' follow-up afterwards. Participants were aged 18 years or more. They were also users of smokeless tobacco who wished to quit and had no abstinence period longer than three months during the year before recruitment. In total, 431 participants were recruited and randomised to varenicline (n=213) or placebo (n=218). All participants were offered brief behavioural support or counselling at the discretion of the investigators.

The primary endpoint was continuous abstinence for four weeks at the end of treatment (weeks 9-12) confirmed by cotinine concentration. A significantly higher rate of abstinence was reported in the varenicline group compared with placebo (59% *v* 39%; relative risk 1.6, 95% confidence interval 1.32 to 1.87; P<0.001).

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

a) The placebo is referred to as an active control

b) The use of a concurrent control group minimised confounding

c) The rate of abstinence in the placebo group (39%) is termed the placebo effect

d) The most recent version (2013) of the Declaration of Helsinki precludes the use of placebos in randomised controlled trials

Submitted by Philip Sedgwick and Carwyn Hoope
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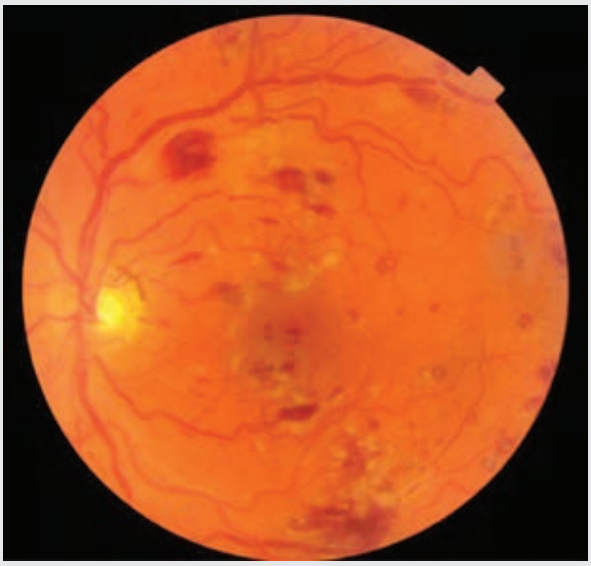

## PICTURE QUIZ Blurred vision and epistaxis

A 34 year old man presented with a three month history of blurred vision. He also mentioned nose bleeds, worsening headaches, and pain in the right knee. He had experienced some weight loss and tiredness but had been previously healthy and took no drugs on a regular basis.

His general practitioner carried out full blood tests in light of the recurrent epistaxis: haemoglobin was 127 g/L (reference range 130-180), platelets $111\times10^9$/L (140-400), white cell count $275\times10^9$/L (3.6-11.0), neutrophils $107\times10^9$/L (1.8-7.5), lymphocytes $11\times10^9$/L (1.0-4.0), monocytes 5.52×109/L (0.2-0.8), eosinophils $8\times10^9$/L (0.1-0.4), and basophils $0\times10^9$/L (0.02-0.1). He was subsequently admitted to hospital for investigations. On admission he was apyrexic and his blood pressure was 130/76 mm Hg. His spleen was not palpable, but ultrasonography of his abdomen showed splenomegaly of 16 cm. His coagulation screen was normal: prothrombin time 12.4 s (11-14), activated partial thromboplastin time 27.7 s (26-39), and fibrinogen 18 µmol/L (4.4-11.8). Renal function was slightly impaired, with a creatinine concentration of 136 µmol/L (58-110) and an estimated glomerular filtration rate of 52 mL/min/1.73m$^2$. Uric acid was increased, at 510 µmol/L (200-430). The lactate dehydrogenase concentration was noticeably increased, at 2458 IU/L (105-133), the vitamin B12 level was increased, at >1500 pmol/L (110-664), and C reactive protein was 4.2 mg/L (<5).

Visual acuity was 6/9 in the right eye and 6/24 in the left eye. Fundal examination revealed bilateral changes, as shown in the fundal photograph of the left eye (fig 1).

1 What is the likely diagnosis based on the history and investigations?

2 How would you confirm your diagnosis?

3 What does the fundal photograph show?

4 What is your differential diagnosis for the fundal appearance of this patient (name three)?

5 How would you manage this patient's condition?

Submitted by Kate Shirley and Feargal P McNicholl
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