

# ENDGAMES

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## PICTURE QUIZ An unusual cause of breathlessness



A 68 year old woman was referred by her general practitioner with a history of exertional breathlessness over the past 10 years. Her symptoms had become more noticeable over the previous few months, especially when walking up inclines and climbing stairs. Echocardiography had shown good biventricular function and no evidence of valvular disease. Chest radiography was not performed at this time. She had been investigated for ischaemic heart disease in the past, and coronary angiography had excluded atherosclerotic disease.

Basic spirometry was within normal limits and a flow-volume loop was not performed.

Her medical history included hypertension, for which she was prescribed a calcium channel blocker. She had never smoked and drank alcohol very occasionally.

On examination she appeared well and was not dyspnoeic at rest. Her blood pressure was slightly raised at 145/90 mm Hg and her pulse was 80 beats/min in sinus rhythm. Cardiovascular examination was normal and auscultation of her chest identified bilateral late inspiratory basal crepitations.

Routine biochemical and haematological blood test results were normal. Thyroid stimulating hormone was slightly raised at 5.6 mIU/L (normal range 0.27-4.2) and free thyroxine 15.8 pmol/L (normal range 12.0-22.0; 1 pmol/L=0.08 ng/dL).

She underwent chest radiography (figure) and subsequently computed tomography of the chest scan.

- 1 What does the chest radiograph show?
- 2 How is this condition managed?
- 3 What are the complications of surgery in cases such as this?
- 4 What are the other features of this condition?

Submitted by Rachel Orme, Catherine Hill, Amit Allahabadia, Barney Harrison, and Ever Grech  
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## STATISTICAL QUESTION The nocebo effect

Researchers investigated whether a sham device (validated sham acupuncture needle) and an inert pill exerted a similar placebo effect in patients with persistent arm pain. A single blind randomised controlled trial study design was used. The study was created from the placebo run-in periods for two randomised placebo controlled trials nested within a larger study, the aim of which was to investigate the effectiveness of acupuncture and amitriptyline in relieving arm pain. One trial compared acupuncture (twice a week) with a validated acupuncture sham device for six weeks, whereas the other compared amitriptyline (25 mg once a day) with placebo for eight weeks. Both trials had a placebo run-in period of two weeks. The primary investigation in this study was the comparison of the sham device with placebo pill during the placebo run-in periods.

Participants were 266 adults with arm pain caused by repetitive use, which had lasted at least three months despite treatment, who scored three or more on a 10 point pain scale. Trial participants were randomised to the acupuncture (n=133) or amitriptyline (n=133) trial. The primary outcome measure was arm pain measured on a 10 point pain scale. At the end of the placebo run-in period, pain had decreased from baseline in both the sham device and placebo pill groups, but the change was not significantly different between groups. Nocebo effects were reported for the sham acupuncture needle and amitriptyline placebo groups.

**Which one of the following best describes the nocebo effect in relation to the administration of a placebo or sham treatment?**

- a) No report of adverse side effects
- b) No report of adverse side effects and no change in symptoms
- c) Report of adverse side effects or worsening of symptoms
- d) Significant improvement in symptoms

Submitted by Philip Sedgwick

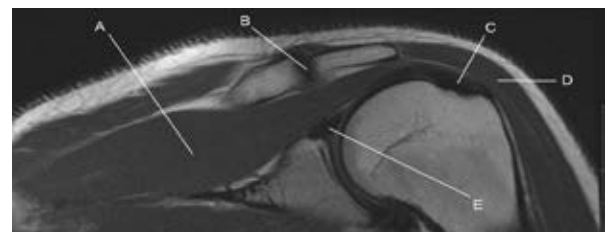
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## CORRECTION: Coronal oblique proton density weighted magnetic resonance imaging of the left shoulder

Owing to an editorial error, this Endgames quiz ([BMJ 2013;347:f4150](http://BMJ 2013;347:f4150), print publication 12 Oct, p 36) by Nikolaos Papadakos listed the wrong anatomical structures in the answers section (p 18). Instead of listing anatomical structures in the shoulder, we gave the answers to a previous quiz by Papadakos, which identified

structures in the lower leg. The answers to this quiz should have read:

- A: Supraspinatus muscle;
- B: Acromioclavicular joint;
- C: Supraspinatus tendon;
- D: Deltoid muscle; and
- E: Superior glenoid labrum. The online version of the article is correct.



**ANSWERS TO ENDGAMES, p XX** For long answers go to the Education channel on [bmj.com](http://bmj.com)

**PICTURE QUIZ An unusual cause of breathlessness**

- 1 The trachea is deviated to the right.
- 2 This woman has a large goitre that is causing serious tracheal deviation and breathlessness on exertion. For these reasons surgical intervention is indicated. She was referred to an endocrine surgeon and underwent a total thyroidectomy.
- 3 Bleeding, haematoma, injury to the recurrent laryngeal nerve(s), and hypoparathyroidism. The patient will require lifelong thyroxine replacement.
- 4 Dysphagia, dysphonia, cough, and symptoms of hyperthyroidism.

**STATISTICAL QUESTION**

**The nocebo effect**

Statement c best describes the nocebo effect in relation to the administration of a placebo or sham treatment.