Interactive case report

A 28 year old postpartum woman with right sided chest discomfort: case progression

Girish Dwivedi, Sajad Ahmed Hayat, Andonis G Violaris, Roxy Senior

Last week (18 February, p 406) we presented the case of Mrs Patel, a 28 year old, seven month postpartum woman with an episode of right sided chest pain that was atypical of angina. Presence of cardiovascular risk factors and an abnormal electrocardiogram prompted further evaluation.

She was reviewed by a cardiologist, who organised further investigations. Her haemoglobin concentration was normal (131 g/l) with a slightly elevated erythrocyte sedimentation rate of 20 mm/h. Her d-dimer concentration was normal (<250 ng/ml). All her biochemistry results were normal with the exception of lipid concentration and thyroid function. Her total cholesterol concentration was 6 mmol/l, and her low density lipoprotein cholesterol and triglyceride concentrations were raised at 3.13 mmol/l and 3.47 mmol/l, respectively. Results of her thyroid function tests were very abnormal, with a free thyroxine concentration <5 pmol/l and a thyroid stimulating hormone concentration of 151.44 mIU/l.

Two-dimensional and Doppler echocardiography showed normal left ventricular size, thickness, and ejection fraction. Her valves were structurally normal with normal colour flow. Her weight made it difficult to assess subtle abnormalities in regional wall motion. She therefore had contrast enhanced echocardiography, which confirmed that her regional wall motion was normal.

On treadmill exercise testing she managed only 3 minutes 51 seconds of the Bruce protocol before having to stop because of chest discomfort. Her maximum heart rate was 155 beats/min, which is 80% of the age predicted maximum. There were no electrocardiographic changes suggestive of ischaemia either during exercise or in the recovery phase. As Mrs Patel complained of chest discomfort during exercise

Questions

- 1 What drugs would you prescribe at this stage?
- 2 How would you manage Mrs Patel's hypothyroidism?
- 3 Is it justifiable to organise cardiac catheterisation for Mrs Patel?

Please respond through bmj.com, remembering that Mrs Patel is a real patient and that she and her carers will be reading the responses

Department of Cardiovascular Medicine, Northwick Park Hospital, Harrow, Middlesex HA1 3UJ

Girish Dwivedi
registrar in cardiology
Sajad Ahmed Hayat
registrar in cardiology
Andonis G Violaris
consultant cardiologist

Roxy Senior
consultant cardiologist

Correspondence to:
R Senior
roxy.senior@virgin.net

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without electrocardiographic changes, she had a repeat treadmill exercise and contrast echocardiography was done within 60 seconds of peak exercise to assess motion. This showed a large area of reduced systolic wall thickening affecting the whole of the anterior septum and apex with obvious dilatation of the left ventricle (figure).

In view of Mrs Patel's low thyroxine and high thyroid stimulating hormone, her levothyroxine dose was increased to 50 µg with the addition of low dose aspirin.

Competing interests: None declared.
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This is the second of a three part case report where we invite readers to take part in considering the diagnosis and management of a real patient using the rapid response feature on bmj.com. In three weeks' time we will report the outcome and summarise the responses

Contrast enhanced exercise echocardiography showing reduced systolic wall thickening affecting the apical septum (stress 4 chamber view), apico-anterior segments (stress 2 chamber view), apico-anterior septum (stress 3 chamber view), and mid-anterior septum (stress para-sternal long axis view)