Interactive case report

Fever of unknown origin: case progression

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Last week (2 September, p 484) we presented the case of a 19 year old student who had a swinging fever of unknown origin. The differential diagnoses after initial investigations include malignancy (particularly lymphoma), sarcoidosis, connective tissue disease, vasculitis, and infective causes including tuberculosis, fungal infection, endocarditis, and HIV. She had no relevant risk factors for HIV, but sexual histories can be initially unreliable, particularly if taken in the presence of relatives. Although the initial presentation was consistent with viral illnesses such as infectious mononucleosis, they were excluded on serological tests.

Three weeks after admission she continued to have spiking temperatures of up to 40°C. She also described a simultaneous erythematous rash, which was not raised and was most pronounced on the dorsal aspect of her legs. She thought that the rash was similar to her previous rash but not as prominent. It was not evident during ward rounds. She later developed a 1 cm firm, mobile lymph node in the right anterior triangle of her neck. Fine needle aspiration gave negative results and she had a biopsy. Computed tomography of the abdomen and pelvis showed no abnormality. The lymph

Fig 1 Patient's chest radiograph

Fig 2 Transthoracic echocardiogram showing a pericardial effusion

Questions

- 1 How would you respond to the parents' request for a second medical opinion?
- 2 What features support the working diagnosis of adult onset Still's disease and what features are against this diagnosis?
- 3 How would you manage the patient at this stage? Please respond through bmj.com, remembering that this is a real patient and that she and her carers may read your response.

node biopsy specimen was initially reported to be consistent with reactive inflammation.

The patient deteriorated, developing acute renal failure and disseminated intravascular coagulopathy. She was transferred to the intensive care unit and required ventilatory support and haemofiltration. She received multiple platelet and blood transfusions and cryoprecipitates.

She was persistently tachycardic and developed acute pulmonary oedema during the third week of admission. Chest radiography showed cardiomegaly, vessel diversion in the upper lobe, and alveolar shadowing suggesting cardiac failure (fig 1). A pericardial effusion was considered and confirmed on transthoracic echocardiography (fig 2). This also showed dilatation of the left ventricle and global impairment of left ventricular function. Findings on transoesophageal echocardiography were similar. We considered a diagnosis of adult onset Still's disease. A serum ferritin test showed very high concentrations (>1500 ng/ml).

At this point the patient was being ventilated in intensive care without a confirmed diagnosis. Communication with her parents and relatives was of paramount importance. We explained that a diagnosis can remain elusive in clinical situations characterised by fever and multiple organ involvement as there are many potential mimics. The parents requested a second medical opinion from an external doctor.

Competing interests: None declared.

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Deviation

The deviation of man from the state in which he was originally placed by nature seems to have proved to him a prolific source of diseases.

Edward Jenner (English surgeon and discoverer of smallpox vaccine, 1749-1823)

Submitted by Prakash Saha, senior house officer in surgery, St Helier's Hospital

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

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