

CASE REPORT

Fever, sore throat and myalgia

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A 20-year-old man presented with a severely sore throat and myalgia, which were unresponsive to antibiotics. He was admitted to a regional hospital with an ongoing painful throat, generalised myalgia, fever and a transient, recurring, salmon-pink rash on his hands and trunk. He did not respond to ceftriaxone and had a continual significant fever daily.

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A 20-year-old man presented with a severely sore throat and myalgia, which were unresponsive to antibiotics. Ten days into his illness he

was admitted to a regional hospital with an ongoing painful throat, generalised myalgia, fever (38.5°C) and a transient, recurring, salmon-pink rash on his hands and trunk. He did not respond to ceftriaxone and had

a continual significant fever daily. Shotty cervical lymphadenopathy was noted. The relevant laboratory investigations are shown in Table 1.

On admission to tertiary care, an aetiological differential diagnosis for the pyrexia of unknown origin (PUO)^[1] (Table 2) included retropharyngeal abscess, Lemierre's syndrome, HIV seroconversion, and adult-onset Still's disease (AOSD). A slightly enlarged left adenoid was noted that exuded a small volume of pus on biopsy, while histology revealed lymphoid hyperplasia. A fourth-generation HIV enzyme-linked immunosorbent assay (ELISA) was negative. A computed tomography (CT) scan and Doppler test excluded retropharyngeal abscess and Lemierre's syndrome. The patient fulfilled the Yamaguchi criteria^[2] (Table 3) for AOSD,^[3] with a good clinical and laboratory response to prednisone 80 mg once daily.

When the aetiological diagnosis eludes the clinician, patients with PUO are often diagnosed as having AOSD. As steroids suppress fever and

Table 1. Relevant investigations during the patient's illness

	Day 8	Day 11	Day 16	Day 23	Day 25
Haemoglobin (g/dL)	13.5	12.6	12.3	10.3	10.0
White blood cell count (× 10 ⁹ /L)	28.1	33.2	23.0	28.1	28.8
Polymorphonuclear neutrophil (× 10 ⁹ /L)	-	-	21.3	-	26.58
Alanine aminotransferase (U/L)				66	55
C-reactive protein (mg/L)			303		
Ferritin (µg/L)			9 405	14 448	
Creatine kinase (U/L)	38				
Blood culture	Negative		Negative		
Antinuclear antibody, rheumatoid factor		Negative			
Antistreptolysin	Negative				

Table 2. Leading causes of classic pyrexia of unknown origin

Infection	Neoplasms	Connective tissue	Other (geographical)
Tuberculosis	Lymphoma	Still's disease	Familial Mediterranean fever
Occult bacterial abscess	Renal carcinoma	Variants of rheumatoid arthritis	Kikuchi-Fujimoto disease
Endocarditis	Atrial myxoma	Systemic lupus erythematosus	Melioidosis
Brucellosis		Temporal arteritis	
		Polymyalgia rheumatica	

Pyrexia of unknown origin defined as temperature >38.3°C for >3 weeks, with >2 outpatient visits or 3 days' inpatient investigations.

Table 3. Yamaguchi criteria (need ≥5 criteria, with at least 2 major criteria)

Major	Minor
Fever of at least 39°C lasting at least 1 week	Sore throat
Arthralgias and arthritis lasting ≥2 weeks	Lymphadenopathy
Non-pruritic macular or maculopapular skin rash, salmon-coloured, usually over trunk and extremities during febrile episodes	Abnormal liver function tests (particularly elevations in aspartate and alanine aminotransferase)
Leucocytosis (≥10 000/μL), with at least 80% granulocytes	Negative tests for antinuclear antibody and rheumatoid factor
	Hepatomegaly or splenomegaly

inflammation, idiopathic PUO would respond to this treatment because its natural history is to abate. However, the key findings in this case of unrelenting quotidian fever, evanescent rash, marked neutrophilia, and ferritin >10 000 μg/L are highly suggestive of AOSD. A low percentage of glycosylated fraction of ferritin is another pointer to the diagnosis, but it cannot be determined in most laboratories in South Africa.^[4]

References

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