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Exercise-induced urticarial vasculitis as a paraneoplastic manifestation of cystic teratoma

Sir, Urticarial vasculitis (UV), which is characterized clinically by urticarial lesions that last for more than 24 h and resolve with purpura or hyperpigmentation, and histologically by leucocytoclastic vasculitis [1], has been described as a rare association with visceral and haematological malignancy [2–7]. UV has also been described in a few patients as developing reproducibly after exercise [8].

We report a patient who developed UV after exercise, who was incidentally diagnosed as having a cystic teratoma, and who did not suffer from the exercise-induced UV after the tumour had been surgically resected.

A 42-yr-old man presented with a 1-month history of recurring erythematous wheals over the lower extremities which appeared a few hours after physical exercise (on every occasion after his weekly jogging). Each lesion persisted for more than 24 h but disappeared after less than 3 days, leaving the area with slight pigmentation. He was examined during the eruption and blood was taken for investigation. He had a normal haemoglobin concentration and total and differential white blood cell counts. The erythrocyte sedimentation rate was 29 mm/h (normally < 20 mm/h). C-reactive protein concentration, plasma protein electrophoresis, immunoglobulins, complement components, liver function tests, urea and creatinine, urinalysis, plasma sodium, potassium, glucose and thyroid function were within normal ranges. Screening for hepatitis B and C virus infection was negative. Antinuclear antibodies and cryoglobulins were not detected. Skin biopsy of an urticarial lesion demonstrated leucocytoclastic vasculitis. After complete resolution (within 3 days and without any therapy), challenge by physical exercise was performed to determine whether exercise could reproduce the urticarial lesions. Exercise challenge was performed on a cycle ergometer for a total of 6 min at room temperature. The workload was increased in a stepwise manner until 85% of the subject’s predicted value of maximal heart rate was reached. Within 5–6 h after exercise challenge, urticarial lesions developed on the patient’s legs and started to disappear at 72 h, leaving slight pigmentation. Skin biopsy was carried out at 24 h, and histology was again indicative of leucocytoclastic vasculitis. The investigations were completed with abdominal ultrasound, which was normal, and a chest X-ray, which showed a tiny widening of the superior mediastinum. Therefore, the patient underwent a chest computed tomography scan, which showed a cystic mass in the anterior superior mediastinum. A chest MRI scan revealed that this mass was very well demarcated and had the imaging features of a cystic teratoma (Fig. 1). The mass was surgically resected, and histology of the specimen confirmed the diagnosis of cystic teratoma. Six months after the operation, the patient restarted his weekly jogging and told us that he did not suffer the urticarial lesions after physical exercise. He repeated the exercise challenge, which did not provoke any cutaneous lesions.

We believe this is the first report of UV as a paraneoplastic manifestation which is triggered by

Fig. 1. Chest MRI of a 42-yr-old man with exercise-induced UV. The scan shows a well-demarcated cystic mass in the anterior superior mediastinum, suggesting a diagnosis of cystic teratoma.
SIR, In a patient with symmetrical polyarthritis the intestinal infection with *Strongyloides stercoralis* Early-onset polyarthritis as presenting feature of *Strongyloides stercoralis*. doi:10.1093/rheumatology/keg348 Rheumatology 2003;42:1419–1420

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The patient gave informed consent to the investigations that led to the diagnosis reported here, and written permission was given for this case to be reported.

Early-onset polyarthritis as presenting feature of *Strongyloides stercoralis*

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Early-onset polyarthritis as presenting feature of *Strongyloides stercoralis*

SIR, In a patient with symmetrical polyarthritis the diagnosis of rheumatoid arthritis (RA) is advocated, especially if no signs of (recent) infection are present. It is considered good clinical practice nowadays to start early treatment with anti-rheumatic drugs, including corticosteroids or tumour necrosis factor-α (TNF-α)-blocking agents. To prevent a life-threatening outcome, however, some rare infections have to be excluded. We describe a patient who presented with recent-onset symmetrical polyarthritis and infection with *Strongyloides stercoralis*.

A 35-yr-old male was referred to our hospital because of progressive arthralgia over the last 4 months despite the use of non-steroidal anti-inflammatory drugs. His medical history was unremarkable. The complaints started after returning from a journey to Surinam, South America. He denied having any complaints during or after his travel. At admission, polyarthritides of the shoulders, wrists, hand joints, knees, ankles and feet was observed. Further physical examination was unremarkable.

Laboratory investigations revealed an erythrocyte sedimentation rate of 80 mm/h, C-reactive protein level of 121 mg/l and a leucocyte count of 5.8 x 10⁹/l with 20% eosinophilia. Routine urine examination was normal. Rheumatoid factor, antinuclear antibodies and HLA-B27 were absent. Serological tests for human immunodeficiency virus, human parvovirus B19 and *Borrelia burgdorferi* were negative. X-rays of the chest, hands, feet and sacroiliac joints were normal. Only after repeated examination was the presence of larvae of *S. stercoralis* detected in concentrated fresh stool. No micro-organisms or larvae could be found in synovial fluid aspirated from the left ankle.

The patient was treated with albendazole 400 mg once daily for 7 days. Because of persistent eosinophilia, a second course was given for another 10 days.

Repeated direct stool examination remained free of *Strongyloides* larvae. In the following months the polyarthritis slowly disappeared and laboratory values normalized. More than 1 yr later the patient is still free of symptoms.

![Rhabditiform larvae of *Strongyloides stercoralis* in Ridley concentrate of faeces (100×).](https://academic.oup.com/rheumatology/article-abstract/42/11/1418/178825)