



The hazards of horse riding



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Case history

A healthy woman, 25 years of age, presented on a winter's day for evaluation of thigh lesions. On examination there were two symmetrical, purple, indurated plaques on the lateral upper thighs that were cold to the touch. The patient remarked that the lesions produced a burning sensation and had been present for 1 week.

On closer enquiry, the patient disclosed she had been horse riding every day for 1 hour during the previous month. She was a nonsmoker and on no medications.

The remainder of the physical examination showed no abnormalities, particularly there were no acrocyanosis, acral lesions, or nail fold telangiectasias.

Routine laboratory tests and lupus serology were normal and no cryoglobulins or cold agglutinins could be detected. Punch biopsy of one of the lesions showed fat cell necrosis and a perivenous lymphohistiocytic infiltrate, most markedly at the interface between the adipose tissue and the dermis.



with cutaneous lupus erythematosus, or systemic lupus erythematosus with a mild course. It shows a predilection for proximal extremities and manifests as indurated, painful plaques. Histologically, half of cases will show epidermal changes of lupus erythematosus, and in the subcutaneous fat there will be a lobular panniculitis with lymphoid follicle formation, and in some cases a lymphocytic vasculitis.

C. Erythema nodosum. This condition produces lesions similar to those seen in this patient, but they are usually multiple and bilateral and found on the pretibial area. This disease, which has many different causes including infections and drugs, microscopically shows the presence of an inflammatory infiltrate confined to the septa of the subcutaneous fat.

D. Erythema induratum. This is a panniculitis that manifests as recurrent crops of painful red nodules with a predilection for the calves. Involvement of the buttocks and thighs is exceptional. This disease, which is presumably of tuberculous origin, histologically produces an image of a septolobular panniculitis with vasculitis.

Question 1

What are the possible diagnoses?

Question 2

What laboratory tests can be useful in this case?

Question 3

What is the management of this condition?

Answer 1

A. Equestrian panniculitis. This is a type of cold panniculitis, usually seen in healthy

young women riders, who use tight and uninsulated riding pants. It is believed that exposure to cold, compounded by the tight trousers impairs the circulation in the peripheral areas of the subcutaneous fat, producing the peculiar, characteristic thigh lesions. Equestrian panniculitis has never been described in men.

B. A cutaneous manifestation of systemic lupus erythematosus. Lupus panniculitis appears in approximately 1–3% of patients

Answer 2

A deep incisional skin biopsy can be taken

from areas of equestrian panniculitis that will show features similar to those seen in this patient. It is important that the biopsy is deep enough to include subcutaneous fat, as the histological changes are most marked in between dermis and adipose tissues.

In most cases of this condition, haematology and serum biochemistry tests are normal, and cryoglobulins or cryofibrinogen are not detected. Occasionally patients may show elevated titres of cold agglutinins, but not in this case. In this patient, the serological and histological features did not support the diagnosis of lupus.

The final diagnosis of this patient is equestrian panniculitis – Answer 1A.

Answer 3

Equestrian panniculitis resolves slowly, without scarring, with warming of the area. The patients are advised to reduce their cold exposure and to wear loose, warm clothing when riding. Oral vasodilators, eg. nifedipine, have not been shown to be helpful. This patient limited her riding to half an hour every day and used warm, loose trousers, and reported marked clinical improvement.

Conflict of interest: none declared.

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