Equestrian Cold Panniculitis in Women

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• We describe four patients with panniculitis attributable to a combination of cold exposure and equestrian activities. All were young, healthy women who rode horses for at least two consecutive hours per day throughout the winter. Initially, several small, erythematous, pruritic papules appeared on the superior-lateral portions of one or both thighs. During one week, the lesions progressed to indurated, red-to-violaceous, tender plaques and nodules. Studies for cryofibrinogens and cryoglobulins were negative. The histologic picture was that of a panniculitis with prominent inflammation of veins most notable at the dermal-subcutaneous fat junction. Cold panniculitis is not limited to infancy and childhood. The distribution of lesions in our patients may have been caused, in part, by the use of tight-fitting, uninsulated riding pants. Such attire may have slowed blood flow through the skin, thereby further reducing tissue temperature.

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The central and western portions of Virginia lend themselves to a variety of equestrian activities throughout the year. These include fox hunting, steeplechase racing, polo, dressage, and trail riding. Recently, there have been several articles dealing with injuries associated with these pursuits.[1-3] Some of the more common injuries are head trauma, fracture of the extremities, and internal contusions. Many of the injuries are directly related to faulty tack or to the infrequent use of helmets.[3]

Another type of injury to which horseback riders may be exposed is cold panniculitis. We describe four young women in whom erythematous, tender, subcutaneous nodules and plaques developed in the superior-lateral portions of the thighs while riding horses in the winter. Studies for cryoglobulins and cryofibrinogens were negative, and the microscopic picture was that of panniculitis with a prominent inflammatory reaction around veins. In view of the unique location of the lesions, the highly constant clinicopathologic picture, and the clear-cut association with equestrian activities, we have chosen to call this entity equestrian cold panniculitis.

REPORT OF CASES

CASE 1.—A healthy 22-year-old woman was first seen in the Dermatology Clinic of the University of Virginia Medical Center, Charlottesville, in February 1979 for evaluation of thigh lesions. She had been riding horses in the Charlottesville area for two consecutive hours almost every day for more than three years. In February 1976, several small, red, pruritic areas on the upper lateral aspect of each thigh developed. During the next three to seven days, these areas became painful, raised, and violaceous. The lesions cleared within three weeks; new lesions continued to appear, however, during the rest of the winter. Except for some hyperpigmentation, there was total resolution of the skin changes by the end of spring. During the next two winters, the patient experienced similar problems, but with an earlier onset each subsequent winter. Her riding apparel consisted of tight-fitting riding pants, chaps, and a short coat. She came to the clinic for evaluation of lesions of five to seven days' duration.

There were six tender, indurated, erythematous, violaceous, 2- to 4-cm nodules and plaques on the upper lateral aspect of each thigh (Fig 1). Several small areas of superficial ulceration were noted in the lesions, but there was no discharge. The results of the remainder of the physical examination were normal. Studies for cryoglobulins and cryofibrinogens were negative.

CASE 2.—A healthy 24-year-old female horse trainer was first seen in the clinic in February 1979 complaining of six painful thigh lesions. The lesions had started as small, red, pruritic areas one week earlier. She had been riding regularly for two consecutive hours per day for the past year. While riding, she wore long underwear, in addition to chaps and tight-fitting pants. Examination showed red-to-violaceous focally ulcerated or crusted nodules, 2 to 4 cm in diameter, on the upper lateral side of her left thigh (Fig 2).

Aside from the cutaneous changes, the results of the physical examination were normal. Studies for cryoglobulins, cryofibrinogens, and antinuclear antibodies, as well as direct immunofluorescence microscopy, were negative.

CASE 3.—A healthy 24-year-old female horse trainer had been riding for continuous periods of two or more hours per day. She routinely wore tight-fitting riding pants. In January 1977, she noted red, pruritic, painful areas on the upper lateral aspect of each thigh. These evolved into violaceous, painful, focally ulcerated plaques and nodules within one week. The lesions resolved within three weeks, leaving only hyperpigmentation. Additional lesions occurred throughout the rest of the winter. A similar course was noted the next winter, but resolution left depressed areas as well as more hyperpigmentation. The patient was first seen in Winchester, Va, for examination in February 1979.

There were six and eight red-to-violaceous, tender, indurated nodules and plaques on the superior-lateral aspects of the left and right thighs, respectively. The largest lesion was 5 cm in diameter. In addition, there were several areas of ulceration with crusting up to 1 cm in diameter. There was a variable degree of hyperpigmentation surrounding the nodules. Ex-

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