Vulval schistosomiasis

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Schistosomiasis is being seen with increasing frequency in the United Kingdom especially in visitors returning from the African continent. Vulval schistosomiasis is a well recognized but previously rare manifestation of the disease in this country[1]. It should be born in mind as a cause of granulomatous inflammation on the genitalia.

Case report

A 29-year-old New Zealand woman was referred from the genitourinary clinic with a 6-month history of an itchy patch on the vulva. There was no history of preceding skin disease. She had been screened for sexually transmitted diseases, diabetes and candidiasis with negative results. There had been no response to topical therapy with hydrocortisone 1% or clotrimazole 1%. On examination there was a granulomatous lesion on the right labium minus (Figure 1).

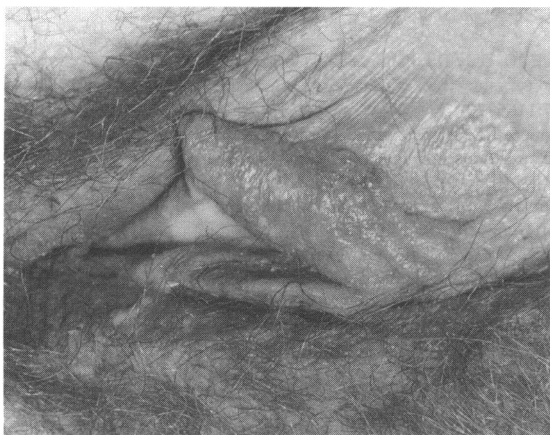

Figure 1. The granulomatous lesion on the right labium minus

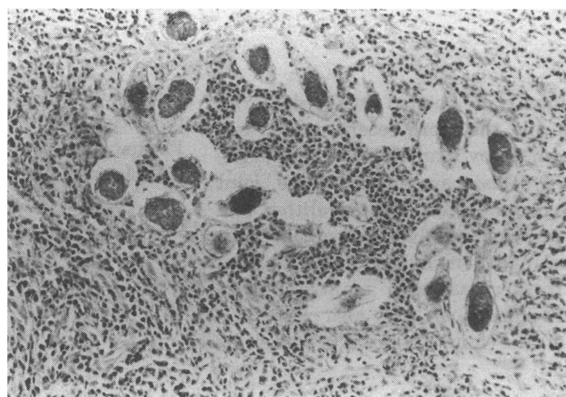

Figure 2. Skin biopsy (vulval lesion) showing multiple Schistosoma haematobium *ova surrounded by a marked inflammatory infiltrate (H&E×180)*

A punch biopsy of the lesion was performed. Histology revealed numerous Ziehl-Nielson negative schistosomal ova with terminal spines, characteristic of *Schistosoma haematobium* (Figure 2). The ova contained multiple viable miracidia surrounded by a marked granulomatous inflammatory infiltrate involving the epidermis and dermis rich in plasma cells and eosinophils.

On subsequent questioning the patient revealed she had swum in Lake Malawi (Central Africa) 6 months prior to the onset of symptoms. She was otherwise asymptomatic.

Investigations revealed a blood eosinophilia (eosinophils 4.2% of total white cell count 9100/mm. Serum IgE was 470 KU/L (normal range 0-120 KU/L). A *Schistosoma* ELISA test was positive (level 4). Microscopy of urine and stools was negative for ova, cysts and parasites.

The patient was treated at the Hospital for Tropical Diseases with praziquantel 2.7 g orally daily for 3 days. Symptomatic improvement occurred within 3 days and there was clinical resolution of the vulval nodule within one week of starting therapy.

Discussion

Schistosomiasis is being seen increasingly in the Western world. Cutaneous manifestations occur with all three subspecies, *S. haematobium*, *S. mansoni* and *S. japonicum* and result from the different stages of the *Schistosoma* life cycle[2]. *S. haematobium* occurs in the Nile Valley, Arabia, Malagasy and India. *S. mansoni* is endemic in the Nile Delta and South America. *S. japonicum* infections occur in the Far East. Skin involvement may occur at the site of penetration of the schistosomal cercariae released by snails in fresh water lakes. This is schistosomial dermatitis and presents as an itchy papular eruption (swimmer's itch), occurring 1-2 h after exposure, lasting a maximum of one week and resolving spontaneously. An urticarial reaction can occur 4-8 weeks after exposure with an immune-complex mediated illness manifest as fever, purpura, arthralgia and abdominal pain, resolving spontaneously within 4-6 weeks. The cercariae pass via the lungs and liver into the portal venous system and adult flukes lodge in the venous plexuses. Direct retrograde spread of the adult flukes from their usual sites into the venous system supplying vulval skin leads to deposition of ova in the skin and subsequent formation of genital granulomas, as in our patient. Fistulous tracts with extensive firm masses may also develop on the perineum, groin or buttocks. Ectopic cutaneous schistosomiasis occurs when ova are deposited in sites such as the skin of the trunk and face due to the embolization of adult flukes from the usual venous plexuses into the paravertebral plexus supplying these areas. The lesions, when they involve the trunk, may appear as a segmental zosteriform eruption[3]. They respond to conventional therapy and resolve within 5 months. Cutaneous schistosomiasis does not appear to be premalignant. Praziquantel, a pentavalent antimony, is the anti-helmintic of choice, giving high cure rates for cutaneous and systemic infection. It kills the adult worm thus preventing further deposition of ova and allows the host defences to destroy the ova already present in the tissues. Our patient illustrates an unusual presentation of schistosomiasis. A recent travel history should be obtained in any patient presenting with granulomatous lesions of the genitalia.

References

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