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Metastatic Crohn's Disease

Penile and Scrotal Involvement

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Crohn's disease is a chronic granulomatous disorder, which may involve any segment of the gastrointestinal tract from the mouth to the anus. Although extraintestinal manifestations are frequent, involvement of skin distant to the gastrointestinal tract is uncommon. We report a case of Crohn's disease affecting penile and scrotal skin.

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Crohn's disease (CD) is a chronic granulomatous disorder, which may affect any segment of the gastrointestinal tract from the mouth to the anus. The skin is involved in 22–44% of patients (1).

Extra-intestinal manifestations of Crohn's disease involving the skin and mucosal membranes have been reported in patients with documented intestinal disease, although cases affecting the genitourinary area are extremely uncommon.

Parks et al. (2) first described granulomatous involvement of the skin distant to the gastrointestinal tract in 1965. The term metastatic CD (MCD) was coined by Mountain (3) to describe cutaneous ulcers that were distinct from the more common perianal and parastomal ulcerations.

CASE REPORT

A 27-year-old black man presented with a 4-month history of a non-healing ulcerative lesion in the subcoronal area of the penis and other lesions with similar characteristics in the scrotal skin near the penile base (Fig. 1). One year earlier, he had presented with an ischiorectal abscess and many perianal fistulae that required a protective colostomy. The patient was diagnosed with CD on the basis of clinical and complementary findings (endoscopic image, histologic changes in the colonic and perianal biopsies) (4).

We performed microbiologic examinations with the following results: tissue culture for bacteria and fungi, determination of rapid plasma reagin, treponemic agglutination and a tuberculin skin test were all negative; titers of serum antibodies for Chlamydia trachomatis (1:128) and direct fluorescent microscopy with conjugated monoclonal antibody were negative in the penile and scrotal skin biopsies. As an empirical treatment, the patient received a full oral dosage of doxycycline for 28 days without effect. Laboratory analyses were normal. Immunologic examinations revealed CD4, 1200/mm^3 (48%), CD8, 529/mm^3 (21%) and ratio CD4/CD8 2′26, $<$50 copies/μl.

Physical examination revealed only non-painful bilateral inguinal lymphadenopathy. Penile biopsy revealed a squamous epithelium with parakeratosis and hyperplasia, as well as underlying chronic lymphocytes and plasma cells and granulomatous (epithelioid histiocyte and giant cell) inflammation (Figs 2 and 3). The patient was treated with mesalamine, prednisone and metronidazole. Marked remission of the penile lesions and perianal fistulae was observed.

The lesions had fully healed 6 months later.

DISCUSSION

A diagnosis of CD affecting penile skin should be suspected in patients with a history of inflammatory bowel disease, especially if perianal involvement is present (5, 6). Pathological examination of these penile lesions should confirm sarcoid granulomatous inflammation parallel to that of the primary CD occurring in the bowel (1, 6).

The differential diagnosis should include chronic infectious lesions (suppurative hidradenitis, tuberculosis, actinomycosis and filariasis), as well as contact and

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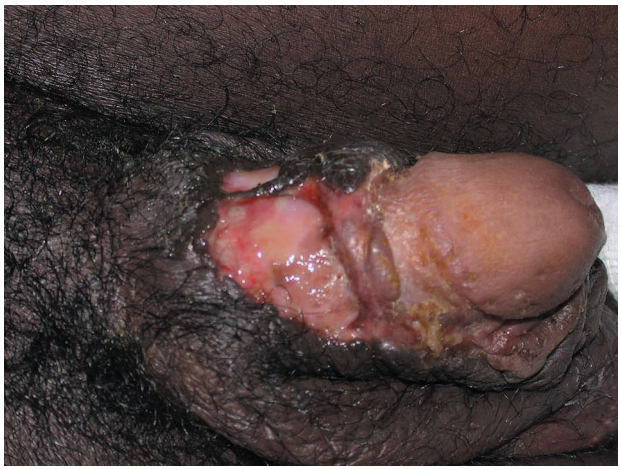

Fig. 1. Macroscopic view of penile lesion in the subcoronal area.

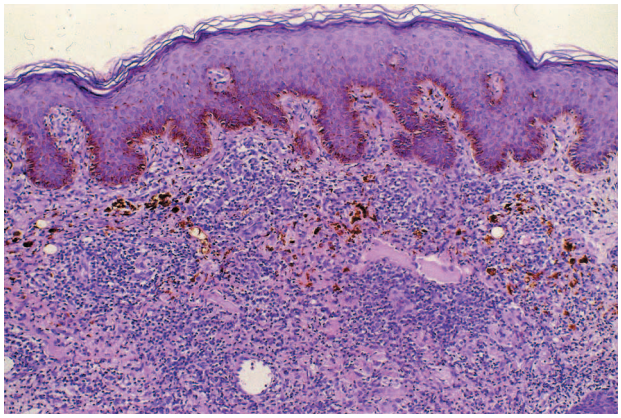

Fig. 2. Penile skin biopsy showing a squamous epithelium with a superficial dermal lymphoplasmacytic infiltrate consisting of lymphocytes and plasma cells consistent with chronic inflammation. Hematoxylin–eosin staining; original magnification ×10.

irritant dermatitis, cellulitis, angioedema and urticaria, fixed drug eruption, extramammary Paget disease (1) and sexually transmitted genital ulcer diseases such as chancroid, lymphogranuloma venereum (LGV), granuloma inguinal and herpes genitalia (7). In our case we rejected a diagnosis of LGV because all cultures and serologies for C. trachomatis were negative. The biopsy of the lesions, as well as the adenopathic pattern, was not typical of LGV. Furthermore, there was no response to tetracycline.

A diagnosis of MCD should be obvious if the patient has associated intestinal manifestations, but sometimes the ulcerate genital lesions may precede the onset of gastrointestinal symptoms.

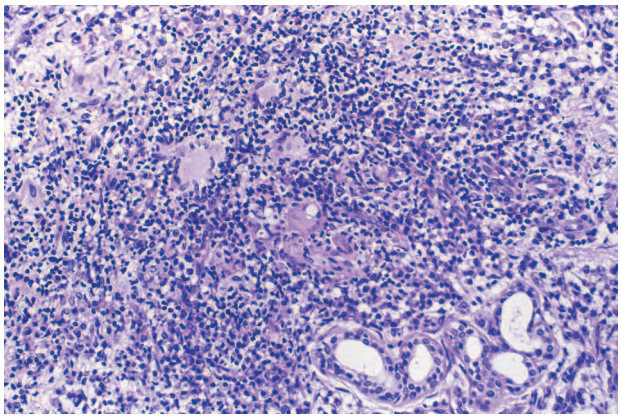

Fig. 3. Detail of the penile skin biopsy showing granuloma with multinucleated giant cells, lymphocytes and plasma cells and ecrine excretory ducts. Hematoxylin–eosin staining; original magnification ×40.

Treatment of these lesions remains controversial. Oral or parenteral corticosteroids, azathioprine, mercaptopurine or mesalamine have been suggested. In perianal disease, oral antibiotic (metronidazole or ciprofloxacin) and i.v. infliximab can be used (4). Penile ulcers may require regular curettage, skin excision or the use of skin grafts; success with these treatments has been mixed (6, 8). In our case, treatment with mesalamine, metronidazole and corticosteroids was successful.

REFERENCES

1. Acker SM, Sahn EE, Rogers HC, Maize JC, Moscatello SA, Frick KA. Genital cutaneous Crohn disease. Am J Dermatopathol 2000; 22: 443–6.
2. Parks AG, Morson BC, Pegum JS. Crohn's disease with cutaneous involvement. Proc R Soc Med 1965; 58: 241.
3. Mountain JC. Cutaneous ulceration in Crohn's disease. Gut 1970; 11: 18.
4. Cockburn AG, Krolikowski J, Balogh K, Roth RA. Crohn's disease of penile and scrotal skin. Urology 1980; 15: 596.
5. Goh M, Tekchandani AH, Wojno KJ, Faerber GJ. Metastatic Crohn's disease involving penile skin. J Urol 1998; 159: 506–7.
6. Neri I, Bardazzi F, Fanti PA, Guidetti MS. Penile Crohn's disease: a case report. Genitourin Med 1995; 71: 45–6.
7. Podolsky DK. Inflammatory bowel disease. N Engl J Med 2002; 347: 417–29.
8. Corazza M, Ughi G, Spisani L, Virgili A. Metastatic ulcerative Crohn's disease. J Eur Acad Dermatol Venereol 1999; 13: 224–6.