



**Figure 3** Wheal-like plaque on the contralateral arm after applying water.

bone densitometry, bone marrow biopsy) were normal. The patient was therefore diagnosed with cutaneous mastocytosis of telangiectasia macularis eruptiva perstans type and cold urticaria. At the time of writing, the patient was receiving cyproheptadine 4 mg/8 h, which partially controlled the outbreaks. Wheals continued to appear upon cold exposure, but were less severe and of shorter duration.

The association of this type of mastocytosis with physical urticaria has not previously been reported and is an

example of mastocytosis complicated by cold urticaria. In our patient, the association was purely coincidental.

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## Mucinous Metaplasia of the Penis Associated With Zoon's Balanitis

### Metaplasia mucinosa de pene asociada a balanitis de zoon

*To the Editor:*

Mucinous metaplasia of the genital area has rarely been reported in the literature.<sup>1-5</sup> It is characterized by the presence of mucin-containing cells in the squamous epithelium of the skin and mucosas of the genital area, and has been described in association with various diseases of this region. We present a patient with mucinous metaplasia associated with Zoon balanitis.

The patient was a 37-year-old, uncircumcised man who was admitted to the hematology department of our hospital for pancytopenia with medullary hypoplasia associated with hepatitis, probably secondary to a parvovirus B19 infection. He reported no other relevant history. While in hospital, the patient consulted about an extensive, erythematous plaque, present for several months, with a smooth shiny surface and an irregular but

well-defined border, extending over the most proximal part of the glans penis and internal surface of the foreskin and affecting practically the entire circumference. Erosions were observed, particularly around the frenulum (Figures 1 and 2). The lesion was asymptomatic, though the patient reported occasional bleeding. We found no evidence of a urethral exudate. A biopsy of the glans penis revealed a focal erosion with a dense inflammatory infiltrate in the superficial dermis formed of abundant plasma cells. Goblet cells in isolation or in small aggregates were identified in the more superficial areas of the preserved squamous epithelium (Figure 3A). The mucinous component was positive for periodic acid-Schiff (PAS) and Alcian blue at pH 2.5 (Figure 3B). A diagnosis of Zoon plasma cell balanitis associated with mucinous metaplasia led to treatment with several strong topical corticosteroids (betamethasone dipropionate, clobetasol propionate), resulting in partial improvements with subsequent recurrence.

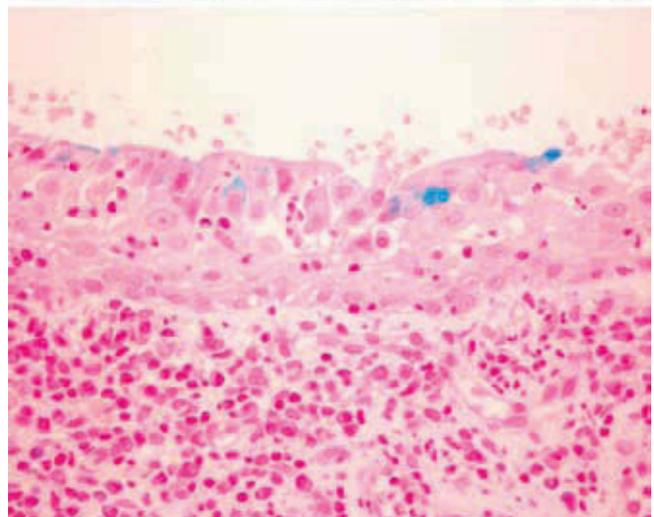
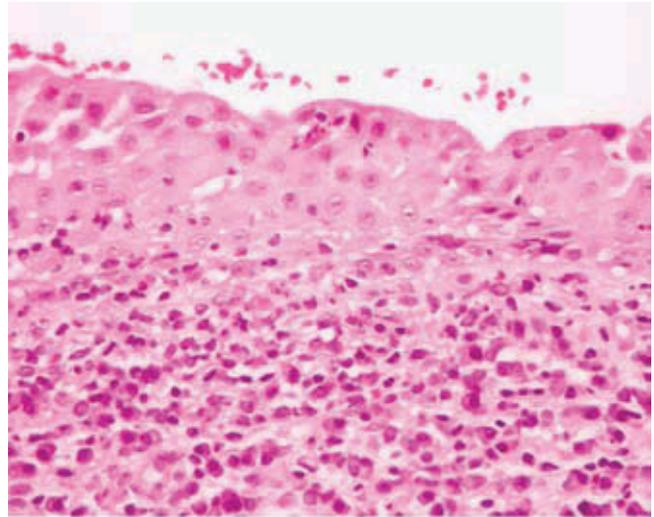
Mucinous metaplasia of the genital area is a benign disorder that probably occurs more often than reported in the literature,<sup>1-5</sup> but whose incidence is not accurately known. After detecting 2 cases of mucinous metaplasia of the genital area, Fang et al,<sup>3</sup> in the United Kingdom, used hematoxylin-eosin staining to examine another



**Figure 1** Erythematous plaque on the glans penis and internal surface of the foreskin.



**Figure 2** Erythematous plaque with erosions.



**Figure 3** A, Mucosa of the glans penis. A number of cells with a clear, granular cytoplasm are visible in the superficial epithelium. Inflammatory infiltrate in the superficial epithelium with abundant plasma cells (hematoxylin-eosin,  $\times 64$ ). B, Mucosa of the glans penis. Mucin-containing cells in the most superficial part of the epithelium (Alcian blue pH 2.5,  $\times 64$ ).

100 samples of foreskin with symptomatic abnormalities (41 balanitis xerotica obliterans, 40 nonspecific balanitis, 9 Zoon balanitis, and 10 cases of miscellaneous conditions, including human papilloma virus infection, benign cysts, epidermoid carcinoma, hamartoma, and infections caused by *Candida* species), for the purpose of evaluating the presence of mucinous cells in the surface epithelium. They found mucinous metaplasia in 2 more cases (4 in total). The positive cases were confirmed with mucin histochemistry (PAS and Alcian blue) and histochemistry was also performed in 18 cases selected at random from the hematoxylin-eosin negative cases.<sup>3</sup>

Mucinous metaplasia of the genital area has been described in older patients, predominantly in males in whom it can be located on the foreskin<sup>2,3,5</sup> or glans penis.<sup>3,4</sup> Our patient presented with involvement of both areas. The only case in women was located on the vulva.<sup>1</sup> Mucinous metaplasia has been reported in association with various inflammatory processes, including Zoon balanitis,<sup>3,4</sup> nonspecific balanitis,<sup>3</sup> suppurative balanoposthitis, and Zoon vulvitis.<sup>1</sup> Our patient belongs to the first group.

Histologically, the findings are very similar to those encountered in our patient, with the presence of small numbers of goblet cells. The stratified epithelium is usually flattened and thin. These findings coincide with those of the associated inflammatory process.

The histogenesis is unknown and probably involves a nonspecific reactive process. Chronic or persistent inflammation, as in Zoon balanitis, gives rise to changes in the epithelium. The process is neither neoplastic nor hamartomatous. Val-Bernal et al<sup>2</sup> suggest that chronic skin irritation can lead to metaplasia of pluripotent cells. The fact that it has been reported in older adults suffering from long-standing inflammatory disorders supports this possibility. Our case, however, was a 37-year-old male with plasma cell balanitis that had developed a few months earlier. It would appear likely that mucinous transformation of the epithelium can be induced after a relatively short period.

Extramammary Paget disease must be considered in the differential diagnosis. It is therefore important to determine whether mucinous metaplasia of the genital

area is present in order to avoid unnecessary aggressive treatments.

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## Sinusoidal Hemangioma: Immunohistochemical Analysis with Glucose Transporter 1 (GLUT1) and Williams Tumor Protein 1 (WT1)

### Hemangioma sinusoidal. estudio inmunohistoquímico con GLUT1 y WT1

*To the Editor:*

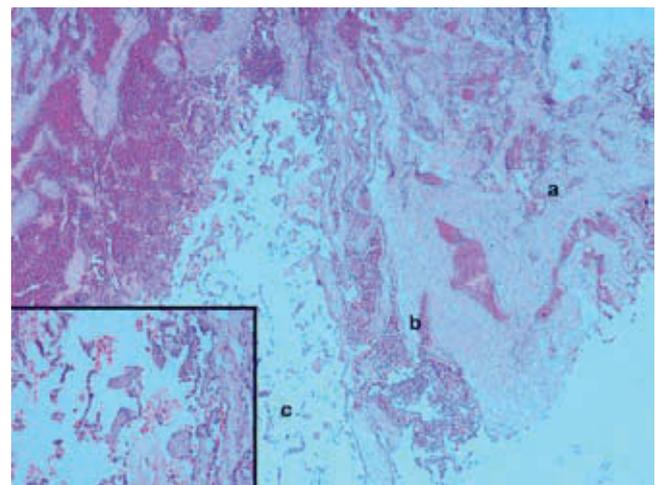
The appearance of Kaposi sarcoma associated with acquired immunodeficiency syndrome in the 1980s led to increased interest in vascular lesions. This in turn has brought about a radical change in the conception and classification of such lesions, with the appearance of as many as 17 new entities,<sup>1</sup> among them sinusoidal hemangioma.<sup>2</sup>

We describe the case of a 59-year-old man who consulted due to a nodule that had appeared 4 years earlier and that had gradually increased in size over the previous 6 months.



**Figure 1** Clinical appearance of the lesion: a round well-defined bluish nodule.

The nodule, located on the anterolateral aspect of the upper third of the right thigh, was asymptomatic. Physical examination revealed a round well-defined bluish nodule, of firm to elastic consistency, that was not adherent to surrounding tissues (Figure 1). The histopathology study revealed a tumor with a vascular appearance that was sharply demarcated but not encapsulated and that replaced several fat lobules. It was composed of thin-walled vessels of different sizes formed by a single strand of endothelial cells arranged in various patterns (Figure 2): a) independent vessels separated by a collagenous stroma; b) tightly packed individual vascular spaces arranged in such a way that hardly any stroma could be seen between them; c) large vascular spaces in which islands composed of a collagen core covered by endothelial cells appeared to float (hematoxylin-eosin, original magnification  $\times 40$ ; inset, hematoxylin-eosin, original magnification  $\times 200$ ).



**Figure 2** Tumor formed of vessels arranged in different patterns: a) independent vessels separated by a collagenous stroma; b) tightly packed individual vascular spaces arranged in such a way that hardly any stroma could be seen between them; c) large vascular spaces in which islands composed of a collagen core covered by endothelial cells appeared to float (hematoxylin-eosin, original magnification  $\times 40$ ; inset, hematoxylin-eosin, original magnification  $\times 200$ ).