Concomitant Follmann balanitis and secondary syphilis

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DESCRIPTION

An otherwise healthy 39-year-old uncircumcised male presented to our dermatology department with a 1-week history of an asymptomatic penile dermatosis (figure 1). The rest of the physical examination was unremarkable, and there was no lymphadenopathy. He was in good general health and denied local trauma or possible irritants. The patient had been evaluated via teledermatology with a urologist 2 days prior, where a diagnosis of balanoposthitis was made. Venereal Disease Research Laboratory (VDRL) serology and herpes simplex virus mucosal swab PCR taken that same day were negative. He had taken one oral dose of fluconazole 150 mg and applied tacrolimus 0.1% ointment two times a day.

The patient was instructed to come back if the problem did not subside. He returned 2 weeks later due to the appearance of an asymptomatic maculopapular exanthem (figure 2). There was painless lymphadenopathy in the inguinal folds and axillae. His penile lesions were unchanged. A diagnosis of secondary syphilis with a concomitant primary syphilitic balanitis (balanoposthitis) of Follmann (SBF) was made. He was treated with benzathine penicillin G 2.4 million units intramuscularly twice with a 1-week interval (according to local guidelines). A second VDRL performed that day was 1:16, with a positive microhemagglutination assay–Treponema pallidum test (MHA-TP). HIV serology was negative. Complete resolution was seen within 7 days of his first dose.

In 1948, Follmann was the first to suggest that primary syphilis could present as a balanitis.1 SBF is an under-recognized type of primary syphilis that may present with a broad spectrum of signs affecting the glans penis and inner prepuce, including erythema, erosions, crust, oedema, paraphimosis, exudate or scale.2 A previous, concurrent or subsequent chancre and lymphadenopathy have been described.3 Patients may be asymptomatic or painful.4 Concomitant primary and secondary syphilis can be seen in approximately 9% of cases (figure 3).5 At one time, this

Figure 1 Erythema over the glans penis and balanopreputial fold, with erosions and moist whitish scale. (A) Left lateral view with intense erythema adjacent to the frenulum. (B) Dorsal view showing a yellow-whitish erosion near the meatus. (C) Right lateral view with patchy whitish scale over diffuse erythema.

Figure 2 Erythematous non-confluent macules and papules with fine scale over the trunk and proximal extremities. The palms and soles were unaffected.

Figure 3 Current understanding of the stages of syphilis. The concomitance of different stages (eg, primary and secondary) should be considered. Entities once thought to happen late in the disease process have been described in early stages (eg, neurosyphilis). RPR, Rapid Plasma Reaginin; VDRL, Venereal Disease Research Laboratory.
was thought to be a classical feature of syphilis in HIV infection but recent research suggests otherwise.6

Non-treponemal tests may be negative in the early stages of primary syphilis in up to 30% of patients, as in our case; however, dark field microscopy or PCR (if available) could potentially confirm the diagnosis.6

The differential diagnosis of acute balanoposthitis includes mycotic infections, usually candidosis, that generally responds well to a single dose of fluconazole. Genital herpes must be excluded, especially if the presentation is painful or recurrent. Contact dermatitis could explain the clinical appearances; however, a history of irritants/allergens and pruritus/pain is usually present. Fixed drug eruption demands the identification of a pharmacologic culprit; it is characteristically recurrent. The existence Zoon’s balanitis’ as a clinicopathological entity is currently under debate; however, erosions are not part of the classical image, and some improvement would have been expected with topical tacrolimus.7 The appearance of a disseminated maculopapular rash was crucial to our diagnosis, as well as the reactive VDRL test and excellent response to penicillin.

Syphilis is a great imitator in all of its stages. Patients with balanoposthitis might benefit from serologic screening, particularly if non-responsive to standard treatment.

Learning points

- Primary syphilis can manifest as balanoposthitis and can be concurrent with secondary syphilis.
- Syphilis is a great imitator in all of its stages (including primary), and a high degree of suspicion is needed.
- All patients with balanoposthitis might benefit from serological screening, for syphilis, particularly if non-responsive to conventional treatment. And treponemal screening should be repeated if the balanoposthitis persists.

REFERENCES