

Multiple papules on the genitalia in two young men

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CASE

Two male patients aged in their 20s, who had no relationship with each other, separately presented with a three-month history of multiple asymptomatic papules on the genitalia. They were both sexually active and had no history of sexually transmissible infections (STIs). Physical examination showed multiple uniform, pinhead-sized, discrete, skin-coloured papules with a shiny surface on the glans penis and foreskin (Figure 1A–C). The biopsies of both patients showed a distinctive histology with a dense, well-circumscribed lymphohistiocytic infiltrate confined to the dermal papillae surrounded by hyperplastic rete ridges (Figure 1D).

QUESTION 1

What is the diagnosis?

QUESTION 2

How can the diagnosis be confirmed?

QUESTION 3

How is this condition managed?

ANSWER 1

Lichen nitidus is an uncommon chronic skin disease. The pathogenesis is still unknown. It typically develops in children and young adults and most frequently

affects the forearms, abdomen, chest, buttocks and genitalia.¹ Lichen nitidus is characterised by the presence of numerous small, asymptomatic, uniform, skin-coloured papules with a shiny surface. Lichen nitidus on the genitalia can be challenging for physicians to diagnose and is often mistaken for an STI, especially condyloma acuminatum. Lichen nitidus is characterised by uniform

and widespread distribution of numerous identical papules with a shiny surface, while genital warts usually display greater lesion-to-lesion variation, are fewer in number and tend to occur in clusters. Another benign and common differential diagnosis that must be considered is pearly penile papules, which are characterised by multiple smooth skin-colored papules distributed circumferentially along the



Figure 1. Clinico-pathological manifestations of the papules

A–C. Multiple small, uniform, discrete, skin-coloured papules with a shiny surface on the glans penis and foreskin; **D.** A 'claw clutching a ball' appearance: a well-circumscribed infiltrate composed of lymphocytes, epithelioid cells and a few Langhans giant cells confined to the dermal papillae and clutched by the neighbouring hyperplastic rete ridges (hematoxylin and eosin, $\times 200$)

corona of the glans penis.² This condition typically appears during adolescence without changes subsequently and does not involve the penile shaft and prepuce. Other clinical differential diagnoses may include molluscum contagiosum, milium, syringoma and ectopic sebaceous glands.

ANSWER 2

A typical clinical presentation usually leads to a diagnosis, while pathology helps to confirm the diagnosis in some clinically atypical cases. The pathology of lichen nitidus presents distinctive features with a 'claw clutching a ball' appearance:^{1,3} a well-circumscribed infiltrate composed of lymphocytes, epithelioid cells and occasional Langhans giant cells confined to the dermal papillae and clutched by the neighbouring hyperplastic rete ridges. The overlying epidermis is usually atrophic. As a result of the lesion involvement being limited to the papillary dermis in depth, shave biopsy based on the wheal produced by local anesthesia is sufficient for the biopsy of lichen nitidus on the genitalia, and the wound usually heals by secondary intention.

ANSWER 3

Treatment of lichen nitidus is not necessary as the lesions usually resolve spontaneously without residual complications. Clinical observation is a common treatment option.¹ Topical corticosteroids and calcineurin inhibitors can be considered. Other therapies, including systemic corticosteroids, antihistamines, acitretin and phototherapy (narrowband ultraviolet [UV] B and psoralen plus UVA), are reported in some chronic, persistent and generalised cases.⁴

CASE CONTINUED

The lesions on one patient disappeared after approximately six months without treatment. The other patient was prescribed topical tacrolimus, and the lesions had subsided at three months' follow-up.

QUESTION 4

Why is the prompt diagnosis significant?

ANSWER 4

Although it is necessary to consider STIs when a patient presents with any genital lesions, these are not the only possible diagnoses. Lichen nitidus is part of the differential diagnosis of genital lesions. Involvement of the genitals often causes self-consciousness and significant stress and anxiety. Furthermore, if the affected patient is a child and is misdiagnosed with an STI, the situation may become complicated with suspicion of child abuse. Lichen nitidus is a harmless condition that is not an infectious disease and does not cause severe adverse medical complications. A prompt and accurate diagnosis can help clinicians to relieve anxiety in patients and avoid unnecessary treatment and treatment-related adverse effects.

Key points

- Lichen nitidus is part of the differential diagnosis of genital lesions.
- Lichen nitidus is characterised by uniform and widespread distribution of numerous identical papules with a shiny surface, while genital warts usually display greater lesion-to-lesion variation, are fewer in number and tend to occur in clusters.
- Clinical observation is a common treatment option for lichen nitidus.

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References

1. Chiu HY, Chiu HC. A florid, tiny, discrete eruption on the penis. *JAMA* 2012;308(12):1264–65. doi: 10.1001/2012.jama.11061.
2. Ramirez-Lluch M, Hernandez-Martin A. Pearly penile papules. *N Engl J Med* 2021;385(15):1420. doi: 10.1056/NEJMicm2106984.
3. Shockman S, Lountzis N. Lichen nitidus. *Cutis* 2013;92(6):288, 297–98.

4. Synakiewicz J, Polańska A, Bowszyc-Dmochowska M, et al. Generalized lichen nitidus: A case report and review of the literature. *Postepy Dermatol Alergol* 2016;33(6):488–90. doi: 10.5114/ada.2016.63890.

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