



A Strange Umbilical Rash in a Newly Diagnosed HIV-Positive Man: A New Clinical Description of a Trichosporon Spp Dermatitis

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Received Date: 09-04-2022; **Accepted Date:** 22-04-2022; **Published Date:** 30-04-2022

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Editorial

Trichosporon is a basidiomycete yeast of tropical origin that is also opportunistic in the immunocompromised. It is characterized by irregular nodules attached to the hair called white piedra. Trichosporon spp has been reported as the 2nd most common agent of disseminated, potentially fatal fungemia [1]. Nevertheless, no pure cutaneous manifestation had been reported. We report a single case of Trichosporon spp causing an umbilical papulonodular rash in a newly diagnosed HIV-positive subject.

A 25-year-old patient, with a history of homosexuality and unprotected sexual intercourse, presented with a one-week-old asymptomatic reddish rash associated with umbilicated papular lesions of the trunk and lower back, which were pruritic and concomitant in appearance. Dermatological examination revealed scattered copper-red papules on the face, trunk and limbs, palmo-plantar papular lesions surrounded by a thin circular whitish collar, with large papules and nodules with an umbilicated center, pruritic and eroded, located in the sacral region and pre-pectoral area (Fig. 1 and 2). Dermoscopy revealed a star-like appearance with an erythema in the center, whitish lines in a radial arrangement surrounded by a crown of vessels in points (Fig. 3). Mucosal examination revealed a syphilitic chancre on the glans and the lymph nodes were free. The rest of the examination was unremarkable. HIV and syphilitic

Dassouli R | Volume 3; Issue 1 (2022) | JDR-3(1)-037 | Editorial

Citation: Dassouli R, et al. A Strange Umbilical Rash in a Newly Diagnosed HIV-Positive Man: A New Clinical Description of a Trichosporon Spp Dermatitis. J Dermatol Res. 2022;3(1):1-5.

DOI: <https://doi.org/10.46889/JDR.2022.3106>

serology were positive with a VDRL titre of 1/64. The lumbar puncture was sterile. A biopsy of the umbilical lesions was performed, which revealed sheets of inflammatory cells made essentially of macrophages forming nodules around the vascular structures of the superficial and deep dermis, microscopic yeasts were present within the macrophagic cytoplasm. The mycological study on the collected tissue revealed the presence of *Trichosporon* SPP. The diagnosis of an opportunistic infection with *Trichosporon* SPP in an HIV-positive and syphilitic subject in the 2nd bloom phase was accepted. The patient was being treated with late penicillin for syphilis and antiretroviral treatment was recommended after a normal pre-treatment workup. Three weeks later, the syphilis disappeared and the nodular lesions subsided. Dermoscopy of the lesions revealed the disappearance of the star-like appearance with the presence of vessels in points and the attenuation of the erythema.

Trichospores are natural soil inhabitants as well as components of human skin and nail flora, which can cause in tropical climates benign superficial hair lesions (*piedra blancos*), characterized by the presence of irregular nodules on the affected hair [1]. These nodules are loosely attached to the hair shaft, have a soft texture, and can be white or light brown [2].

A case of lichenoid lesions of the trunk in an HIV-positive patient was reported in the literature, whose histological and mycological study revealed the coexistence of *Trichosporon* and *Histoplasma capsulatum* during a systemic fungemia [2].

In our case, the association of a syphilitic chancre and asymptomatic coppery papular lesions of the body with nail-like palmar lesions surrounded by a Bielt's collar represented the typical aspect of a syphilis in coexistence with a primary syphilis, frequently encountered in seropositive subjects. An HIV serology was then requested together with a syphilitic serology to confirm the diagnosis of syphilis, which came back positive. Moreover, the papulo-nodular lesions of the trunk and lower back had a different appearance with an umbilical and pruritic character. Two hypotheses were evoked: syphilis with an atypical clinical presentation in a seropositive subject, or a cutaneous fungal co-infection such as histoplasmosis, cryptococcosis, or penicillinosis. Histology showed yeasts in the papillary and reticular dermis surrounded by inflammatory cells, and further mycological analysis confirmed the presence of *Trichosporon* Spp.

The clinical form of this fungus in our patient indicates a good therapeutic response to Penicillin G. However, previous studies have demonstrated effective antifungal activity with azoles and amphotericin B treatment for *Trichosporon* infection [3]. Other forms of treatment, such as resection of infected tissue, are associated with greater improvement [3].

We report an original case of opportunistic fungal dermatosis in an HIV-positive subject with a good therapeutic response to Penicillin. Indeed, a *Trichosporon* infection should not be excluded in front of umbilical eruptions in an immunocompromised person [4-7]. Although not

reported in the literature, the efficacy of penicillin against this mycosis remains to be demonstrated.



Figure 1: Umbilical papulonodular lesions of the chest.



Figure 2: Multiple umbilical papulonodular lesions of the chest. Multiple papulonodular lesions, some of which are umbilicated on the back, corresponding to trichosporon spp lesions associated with syphilis.



Figure 3: Demoscopy shows a star-like appearance with an erythema in the center, whitish lines in a radial arrangement that were surrounded by a crown of vessels in points.

Keywords

Trichosporon SPP; Dermatitis; HIV; Syphilis

Consent

The examination of the patient was conducted according to the principles of the Declaration of Helsinki. The authors certify that they have obtained all appropriate patient consent forms, in which the patients gave their consent for images and other clinical information to be included in the journal. The patients understand that their names and initials will not be published and due effort will be made to conceal their identity, but that anonymity cannot be guaranteed.

Conflict of Interest

The authors declare that they have no conflict of interest.

Dassouli R | Volume 3; Issue 1 (2022) | JDR-3(1)-037 | Editorial

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DOI: <https://doi.org/10.46889/JDR.2022.3106>

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