



Photos in Pediatrics

Green nail syndrome

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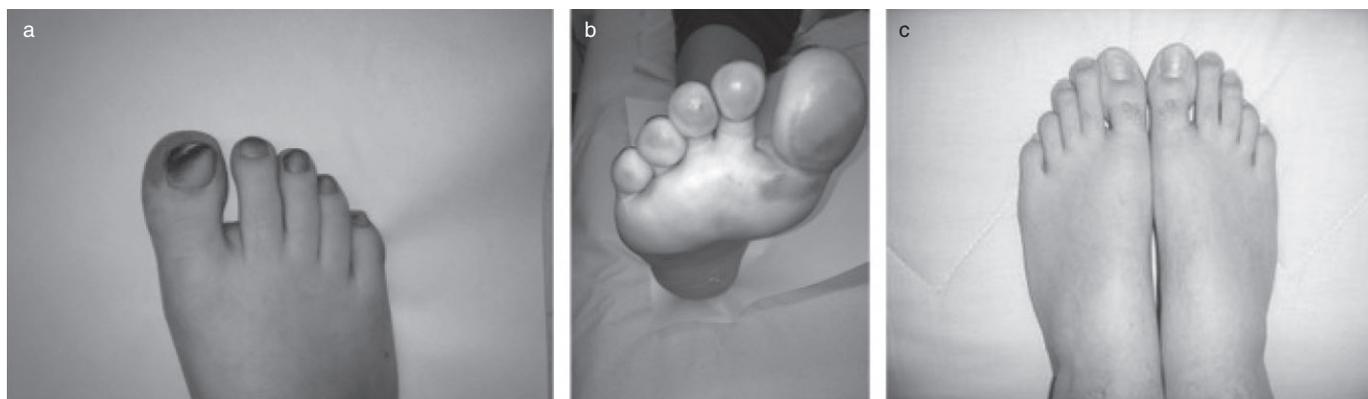
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Fig. 1 (a) Green discoloration of the right toenails; (b) exudative/erythematous skin lesions; (c) after 5 weeks of treatment.

A 8-year-old boy with HIV infection due to perinatal exposure was admitted to the Pediatric Department because of green discoloration of the right toenails (Fig. 1a). Exudative/erythematous skin lesions on the lower surface at sites of pressure burden, and probably co-generated by the extensive use of unventilated athletic shoes, were also noted (Fig. 1b). At the time of diagnosis the patient was under combined antiretroviral therapy: CD4 cell count was 576 cells/ μ L and HIV-RNA was $>100\,000$ copies/mL.¹ Mycological examination of the affected nail scrapings was done, and fungal infection was excluded on microscopy and culture. Bacteriology indicated *Pseudomonas aeruginosa* on Gram stain and culture of the exudate and unguis fragments. Green nail syndrome is a paronychia infection caused by *P. aeruginosa*, a Gram-negative bacterium.² This condition clinically presents as a greenish-black, greenish-brown or greenish-yellow discoloration of the nail. Furthermore *P. aeruginosa* has a characteristic sweet, fruity odor due to its production of trimethylamine and pyocyanin, a greenish-blue pigment that diffuses into the underside of the nail plate, accounting for the green discoloration

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characteristic of this condition.^{2,3} Although commonly seen, the treatment for this disorder remains challenging, and is quite complex in HIV infection, due to the lack of controlled studies assessing systemic or topical treatments.^{4,5} Based on immunological status, the patient was treated topically with neomycin/polymyxin B galenic unguentum applied twice daily, rubbing it gently onto the affected nails and the surrounding skin. Complete resolution was achieved within 5 weeks (Fig. 1c).

References

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