



Medical Imagery

Cutaneous aspergillosis disseminated from invasive pulmonary aspergillosis



A 78-year-old female diagnosed with myelodysplastic syndrome with excess blasts type 2 (MDS-EB2) 10 months ago was admitted to our hospital due to fever and a tender, 3-cm purple-red infiltrative erythema on her right lower leg. This single lesion evolved into multiple lesions with a sporotrichoid pattern over 4 days (Figure 1a). Laboratory data revealed a white blood cell count of $0.4 \times 10^9/l$. A computed tomography scan revealed a halo sign in the upper lobe of her right lung (Figure 1b). Biopsies of the lung and lower leg were performed, and the histological examination showed mycelium of *Aspergillus* species (Figure 1c). These cultures grew *Aspergillus fumigatus*. The patient was prescribed liposomal amphotericin B for 2 months, and her clinical symptoms gradually improved (Figure 1d).

Secondary cutaneous lesions result from contiguous extension to the skin of infected underlying structures or widespread blood-borne embolism of the skin (Bernardeschi et al., 2015). The highly angiotropic nature of the *Aspergillus* species accounts for the usual lesion morphology in secondary dissemination to the skin (Watsky et al., 1990). The cutaneous infection described in this case was disseminated disease from the pulmonary site, because the skin of the patient's lower leg was undamaged, and the purple-red infiltrative erythema occurred on normal skin. A biopsy should be performed to obtain an accurate diagnosis because secondary cutaneous aspergillosis can resemble ecthyma gangrenosum and Sweet's syndrome (van der Werf et al., 2003).

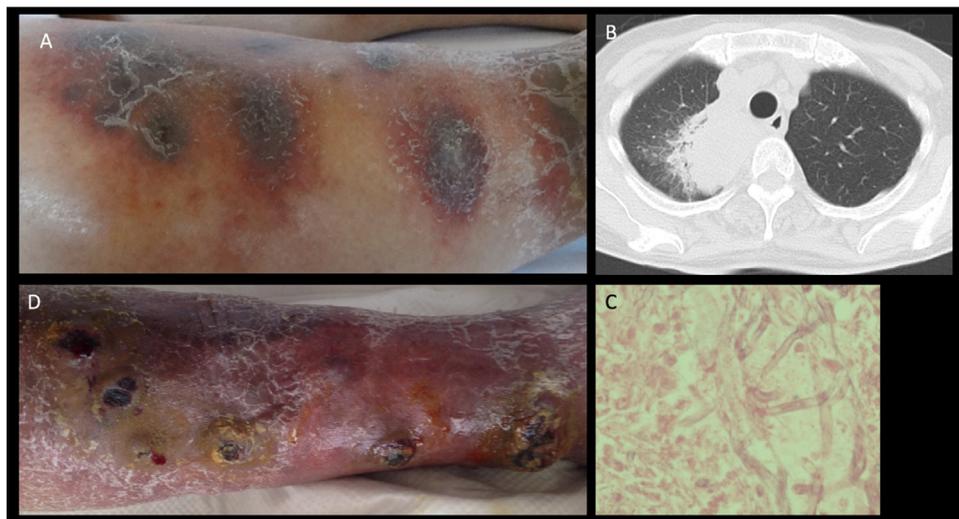


Figure 1. (A) On her right lower leg, 3-cm purple-red infiltrative erythema appeared and spread frequently. (B) Computed tomography of her lungs revealed a halo sign in the upper lobe of her right lung. (C) Biopsies of the lung and lower leg were performed, and the histological examination showed mycelium of *Aspergillus* species. (D) Her leg erythema gradually improved after administered liposomal-amphotericin B.

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Patient consent

The patient consented by signature to the publication of his history and photographs.

Conflict of interest

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Transparency declarations

None to declare.

References

Bernardeschi C, Foulet F, Ingen-Housz-Oro S, Ortonne N, Sitbon K, Quereux G, et al. Cutaneous invasive aspergillosis: retrospective multicenter study of the french

invasive- aspergillosis registry and literature review. *Medicine (Baltimore)* 2015;94:e1018.

Watsky KL, Eisen RN, Bologna JL. Unilateral cutaneous emboli of *Aspergillus*. *Arch Dermatol* 1990;126:1214–7.

van der Werf TS, Stienstra Y, van der Graaf WT. Skin ulcers misdiagnosed as pyoderma gangrenosum. *N Engl J Med* 2003;348:1064–6.

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