

# MANAGEMENT AND WOUND CARE OF PRIMARY CUTANEOUS ASPERGILLOSIS IN A PREMATURE NEONATE

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**Background:** Aspergillus species are found ubiquitously in the environment. Multiple cases of neonatal aspergillosis have been traced back to neonatal intensive care units, even after rigorous cleaning procedures. Premature neonates are particularly vulnerable to these fungal infections as their immune systems and integument are underdeveloped. Fungal invasion through breaks in the epidermis can lead to the development of primary cutaneous aspergillosis (PCA), a skin infection that is locally destructive causing tissue necrosis. If left untreated, the fungus can disseminate into deeper tissues, causing significant morbidity and mortality. Treatment options are primarily pharmaceutical with rare indications for surgical debridement. However, concomitant wound care protocols may be beneficial as well. Herein, we report the successful management and wound care of PCA with extensive necrosis in a premature neonate.

**Materials/Methods:** A 6-day-old male born prematurely at 23 weeks and 6 days presented with denuded skin underlying widespread white plaques and pinpoint black lesions along the midline of the back. Biopsy and culture of the area returned positive for both *Aspergillus flavus* and *Aspergillus niger*. Appropriate antibiotic and antifungal treatment were initiated. Loose necrotic tissue was removed weekly with warm 0.9% saline on a cotton-tipped applicator. Fresh silver-impregnated dressings were applied daily and secured with swaddling wraps. Pharmacotherapy and wound care were discontinued on day of life 85 and 108, respectively.

**Results:** By day of life 40, all wounds were red, moist, and granulating. By day of life 108, the wound reached complete resolution and the patient was discharged from the wound care service with a well-healed hypopigmented scar.

**Conclusions:** This case highlights the importance of rapid medical management coupled with daily wound care for the successful treatment of PCA with extensive necrosis.

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