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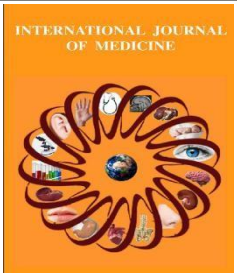

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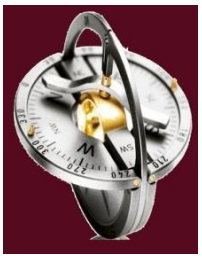

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Clinical Image

Invasive mold infection of the renal graft

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A 59-year-old man, as a liver recipient for 10 years, was referred for further management of open wound at right lower abdomen where kidney graft was implanted recently. The wound, which had been debrided several times, showed gangrenous necrosis of soft tissue with partial exposure of the graft (Figure 1A). The white hairy appearance was seen in contrast to the black eschars (Figure 1B). The graft kidney, in this case, was invaded by molds and en-bloc removal was performed finally, even under aggressive antifungal medications. Pathological examination revealed mucormycosis and aspergillosis, the latter of which had uniform widths of septate hyphae.

Fungal infection is not uncommon in the transplant setting, accounting for 5% of all infections in renal recipients [1]. Among them, invasive mold infections are relatively rare and their emergence warrants particular attention. Notably, the reemergence of mucormycosis and other non-aspergillus mold infections was observed after the introduction of voriconazole and caspofungin in the management of fungal infections [2]. The hallmarks of mucormycosis are vascular invasions and tissue necrosis with black eschars [3] as typically demonstrated (Figure 1B). Both mold species (mucormycosis and aspergillosis) can invade blood vessels and may cause lethal massive bleeding. Multiple species of mold infections can occur in patients, such as our case. The fact that the infection occurred fairly soon after transplantation and involved the graft and surgical site and might suggest contamination during surgery. Hospital constructions or at adjacent sites predispose the hospital ventilation systems may serve as the source micro-epidemics of mold infection [4]. Prophylactic protocols may need to be modified and targeted accordingly [5].

(A) (B)

Figure 1. Exposed open wound (A) and focally enlarged view to illustrate the white hair (B).

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Conflict of interest

The authors declare no conflict of interest.

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