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Impact of Mucormycosis Infection In Limb Salvage for Trauma Patients

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Abstract: Mucormycosis is a rare opportunistic fungal infection that, if left untreated, can cause large scale tissue necrosis and death. There are a number of cases of this in the literature, most commonly in the head and neck region arising from sinuses. It is also usually found in immunocompromised patient subgroups. This study reviewed a number of cases of mucormycosis in previously fit and healthy young trauma patients to assess predisposing factors for infection and adequacy of current treatment paradigms. These trauma patients likely contracted the fungal infection from the soil at the site of the incident. Despite early washout and debridement of the wounds at the scene of the injury and on arrival in hospital, both these patients contracted mucormycosis. It was suspected that inadequate early debridement of soil contaminated limbs was one of the major factors that can lead to catastrophic tissue necrosis. In both cases, this resulted in the patients having a higher level of amputation than would have initially been required based on the level of their injury. This was secondary to cutaneous and soft tissue necrosis secondary to the fungal infiltration leading to osteomyelitis and systemic sepsis. In the literature, it appears diagnosis is often protracted in this condition secondary to inadequate early treatment and long processing times for fungal cultures. If fungal cultures were sent at the time of first assessment and adequate debridements are performed aggressively early, it could lead to these critically unwell trauma patients receiving appropriate antifungal and surgical treatment earlier in their episode of care. This is likely to improve long term outcomes for these patients.

Keywords: mucormycosis, plastic surgery, osteomyelitis, trauma

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