

Evaluation of Fungal Contamination in Traumatic Skin Wounds of Domestic Cats in Mashhad, Iran

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BACKGROUND AND OBJECTIVES: Fungal colonization of traumatic skin wounds has been under recognized in veterinary medicine despite its potential to delay healing. This study aimed to determine the prevalence, species diversity, and clinical correlates of fungal contamination in feline traumatic wounds.

MATERIALS AND METHODS: Fifty-four cats presenting with acute or chronic traumatic skin injuries at the Veterinary Hospital of Ferdowsi University of Mashhad were sampled over a 13-month period. Sterile swabs were cultured on Sabouraud Dextrose Agar with chloramphenicol, and the isolates were identified by both macroscopic/microscopic morphology, as well as biochemical tests. Associations between fungal presence and host factors (age, sex, weight, breed), wound characteristics (depth, etiology, contamination grade), underlying disease, and vaccination status were evaluated using Cramer's V (P0.05).

RESULTS AND DISCUSSION: Nine of 54 wounds (19%) yielded fungal growth. Identified genera included *Aspergillus* (n=3), *Cladosporium* (n=2), *Cryptococcus* (n=1), *Prototheca* (n=1), and *Penicillium* (n=2). No statistically significant associations were found between fungal contamination and any demographic or clinical variables (all P0.05). Fungal contamination occurred in approximately 19% of feline traumatic wounds, encompassing both yeast and filamentous genera. The absence of clear risk factors underscores the need for routine fungal screening, especially in wounds refractory to standard therapy. Further molecular studies and longitudinal follow-up are warranted to elucidate the impact of fungal biofilms on feline wound healing and to guide targeted antifungal interventions.

Keywords: Cats, Fungal Contamination, Wound Healing, Veterinary Mycology