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Zoonotic Dermatophytosis: A Public Health Concern

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ABSTRACT

Background: Zoonotic dermatophytosis are fungal infections that can be transmitted from animal to man, they are caused by fungi belonging to the genera *Trichophyton,*(seen in cattle and sheep) and *Microsporum*(seen in cat and dogs).These fungi feed on keratin, a material found in the outer layer of skin, hair and nails. They colonize the animal skin and infect humans who come in contact with the animal resulting in dermatophytosis which may be chronic or recurrent. Method; A total of 100 Nomads from different animal ranches and 100 artisans in Enugu State were screened for cutaneous fungal lesions, the lesions were scraped, 10 cattles were also scraped for confirmation of zoonotic fungi and all the scrapings were inoculated unto Sabouraud Dextrose Agar (SDA) plates containing 50mg/l chloramphenicol (S+C), the plates were incubated at 25^0C for 5days and some biochemical tests and lacto phenol cotton mount were done to identify the fungi.

Result: Of the 200 samples, 149 had fungal growths, *T. mentagrophytes* 38(25.5%), *T. verrucosum* 27(18.1%), *Candida albicans* 22(14.8%), *Aspergillus species* 20(13.4%), *Fusarium solani* 18(12.0%) *Geotricum candidum* 14(9.4%), *Penicillium spp* 8(5.4%)and *Microsporum gypsum* 2(1.3%). *Trichophyton spp* were the highest fungi isolated while *Microsporum canis* was the least. All the 100 samples from the Nomads yielded similar fungal growth as that seen on the cattles while out of the 100 samples from the artisans, only 49 yielded fungal growths and they were not zoonotic, there was statistically significant difference ($P<0.05$) between the rate and type of fungal growth between the nomads and the artisans. These finding suggest that the Nomads are more exposed to the zoonotic infection from the animals and the animal farm and this poses great health risks because the infection is highly transmissible through fungal spores. Recommendation; Government should provide adequate medical facilities and adequately sanitized and clean animal farms for animal management. Nomads should undergo medical check regularly.

Keywords: Dermatophytosis, Zoonotic dermatitis, Normads, Artisans, Cattle ranches

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