

Efficacy of disinfectants containing accelerated hydrogen peroxide against conidial arthrospores and isolated infective spores of *Microsporum canis* and *Trichophyton spp.*

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ABSTRACT

Dermatophytosis (ringworm), in pets is a skin condition typically caused by fungal infections, more specifically *Microsporum canis* and *Trichophyton spp.* Disinfectants, especially sodium hypochlorite (bleach), are commonly used to kill spores not removed during the "hard" cleaning process. Bleach is commonly recommended in the fight against ringworm for its known ability to kill spores. However, it is widely recognized that bleach degrades if not used by the expiry date impacting its efficacy, requires the use of personal protective equipment (as it is a respiratory irritant and can cause damage to the skin and eyes) and has corrosive properties that are known to cause damage to fabrics and surfaces. As a result, a comprehensive analysis was undertaken to determine if Accelerated Hydrogen Peroxide[®] (AHP[®]) would be a suitable alternative to sodium hypochlorite.

STUDY

The purpose of this study was to determine the antifungal efficacy of AHP disinfectants against ringworm. Accel RTU, Accel TB RTU, Accel CS20 and multiple dilutions of Accel Concentrate (1:8, 1:16 and 1:32) were tested against 3 isolated infective spore suspensions of *Microsporum canis* and *Trichophyton sp.*

The plates were incubated at 30 degrees Celsius for 14 days. Potential pathogens were identified microscopically using established morphological criteria.

CONCLUSION

AHP products are an option for environmental disinfection of surfaces exposed to *Microsporum canis* and *Trichophyton spp.* after appropriate gross decontamination and mechanical cleaning with a detergent. The results from conidial testing were identical to those of isolated infected spore testing, which suggests that AHP products with an antifungal label claim against *Trichophyton mentagrophytes* are a suitable disinfectant alternative to sodium hypochlorite.

REFERENCE

Moriello, K. & Hondzo, H. (2014). Efficacy of disinfectants containing accelerated hydrogen peroxide against conidial arthrospores and isolated infective spores of *Microsporum canis* and *Trichophyton sp.* *Veterinary Dermatology*, Volume 25, Issue 3, pgs 191-e48, June 2014.