ESTABLISHING THE EFFICACY OF NOVEL TOPICAL FORMULATIONS IN THE TREATMENT OF EXPERIMENTAL DERMATOPHYTOSIS IN GUINEA PIGS

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Summary. Dermatophytosis remains one of the most frequent infectious diseases in veterinary dermatology and clinical investigations are still required to better understand the epidemiology of the disease and provide new treatment options. Since dermatophytosis is highly contagious and zoonotic, its treatment must be effective, safe, comfortable to administer and inexpensive. Topical drug delivery formulations become more widespread in veterinary medicine. Topical therapy is often preferred to oral drug administration in the treatment of cutaneous fungal infections in pets. The aim of this study was to evaluate the efficacy of novel topical formulations in the treatment of dermatophytosis in guinea pigs. The clinical efficacy and safety of once daily topical administration of E-1 cream and T-1 cream was assessed in experimental tinea corporis in guinea pigs and compared with licensed antifungal topical preparation Imaverol, as well as the vehicle of the creams. The clinical features improvement after 1% terbinafine hydrochloride cream application varied from 41.25% (day 12) to 100% (day 36), after 1% econazole nitrate cream resorting - from 22.5% (day 12) to 100% (day 44). Clinical effectiveness of Imaverol solution varied from 16.25% (day 12) to 100% (day 48). When animals were treated with vehicle of the creams, mean percentage improvement of clinical features varied from 20% (day 12) to 100% (day 48). The experimentally infected untreated guinea pigs in control group showed spontaneous resolution of lesions within 56 days.

Keywords: antifungal, cream, dermatophytosis, guinea pig.