Dermatophytosis causes significant personal discomfort and cosmetic problems globally (1). Currently available antifungal preparations often do not provide adequate cure for dermatophytosis. New, more effective therapy is needed. The purpose of this study was to evaluate antifungal agents, for the oral treatment dermatophytosis in a guinea pig model. The guinea pig model has been developed and used successfully at the Center for Medical Mycology in the pre-clinical evaluation of terbinafine (both oral and intramuscular). On the left side of the back, hair was clipped and shaved. A square of 2.5 cm x 2.5 cm was shaved. The area was first cleaned with sterile saline and then treated with a local anesthetic. Fungal inoculation was performed using a sterile inoculating loop. The fungal inoculum was obtained from a sub-cultured on Potato Dextrose Agar (PDA) plates and incubated at 30°C for 5 - 7 days. The colonies were scraped from the plates using sterile pasta solution. Cells were washed in saline and harvested by centrifugation. A small animal was anesthetized with a cocktail of xylazine, ketamine and acepromazine, intramuscularly. On the left side of the back, hair was clipped and shaved. A square of 2.5 cm x 2.5 cm was shaved. The area was first cleaned with sterile saline and then treated with a local anesthetic. Fungal inoculation was performed using a sterile inoculating loop. The fungal inoculum was obtained from a sub-cultured on Potato Dextrose Agar (PDA) plates and incubated at 30°C for 5 - 7 days. The colonies were scraped from the plates using sterile pasta solution. Cells were washed in saline and harvested by centrifugation. A small animal was anesthetized with a cocktail of xylazine, ketamine and acepromazine, intramuscularly. On the left side of the back, hair was clipped and shaved. A square of 2.5 cm x 2.5 cm was shaved. The area was first cleaned with sterile saline and then treated with a local anesthetic. Fungal inoculation was performed using a sterile inoculating loop. The fungal inoculum was obtained from a sub-cultured on Potato Dextrose Agar (PDA) plates and incubated at 30°C for 5 - 7 days. The colonies were scraped from the plates using sterile pasta solution. Cells were washed in saline and harvested by centrifugation.

### Materials and Methods

#### Introduction


#### Results

Both VT-1161 groups showed significant clinical and mycological efficacy when compared to the untreated and vehicle controls. Daily treatments of VT-1161 showed equivalent clinical and mycological efficacy. VT-1161 given once-weekly was clinically superior to the same dose of terbinafine given once-weekly. There was no significant difference between once-daily and once-weekly VT-1161 treatments. These data show that effective and convenient dosing regimens of oral VT-1161 may represent new antifungal therapies options.

#### Conclusions

- Terbinafine 10 mg/kg, daily
- VT-1161 10 mg/kg, daily
- VT-1161 70 mg/kg, daily

Results (cont.)

#### References


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