



INFECTIOUS DISEASES (BACTERIAL, FUNGAL, VIRAL, PARASITIC, INFESTATIONS)

## **EFFICACY OF PETROLEUM JELLY SCALP OCCLUSION KIT VERSUS PERMETHRIN 1% SHAMPOO IN THE TREATMENT OF HEAD LICE AMONG PUBLIC SCHOOL CHILDREN IN MANILA: AN ASSESSOR-BLINDED, RANDOMIZED CONTROLLED TRIAL**

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**Background:** Head lice infestation is the third most common health problem in Philippine public schools. Studies suggest that suffocants such as petroleum jelly may be a more efficacious and safer alternative to the standard neurotoxic pediculicides in treating head lice.

**Objectives:** We evaluated the efficacy and safety of petroleum jelly scalp occlusion kit (K-kit) compared to permethrin 1% shampoo among public school elementary students with head lice.

**Methods:** In an assessor-blinded controlled trial, 100 students with head lice, 6 to 14 years old, from an elementary public school in Manila, were randomly divided into two equal treatment groups. The K-kit group received petroleum jelly with scalp occlusion for 8 hours once weekly for 3 consecutive weeks while the permethrin group received 1% permethrin shampoo applied for 10 minutes once weekly for the same period. Household contacts were also treated. Follow-up for elimination of head lice on days 2, 9, and 16 and for reinfestation after a month was done. Health information on head lice was given at the start of the study.

**Results:** Only 47 students in each group completed the trial. In the intention-to-treat population, louse-free rates at days 2 (K-kit=40% vs. permethrin group=30%,  $p=0.40$ ), 9 (40% vs 54%,  $p=0.1$ ), and 16 (52% vs. 70%,  $p=0.16$ ) were comparable for both groups. Reinfestation rate was lower for K-kit but comparable to permethrin (33% vs 55%,  $p=0.16$ ). No serious adverse events were noted in both groups.

**Conclusion:** This study shows that petroleum jelly scalp occlusion has a comparable efficacy to permethrin 1% shampoo in treating head lice. It is a safe and inexpensive alternative treatment for head lice.

