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

LAWSONIA INERMIS LINN (HENNA) AGAINST TINEA PEDIS RELATED TO OUTDOOR TASKS

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Background: Lawsonia inermis Linn (Henna) is a plant that is widely recognized in folk medicine of the Middle East countries. To develop effective prevention strategies for marching injuries of military outdoor trainings we investigated the safety and effectiveness of henna powder.

Subjects and Methods: 200 military trainees were enrolled in a case control study. They were randomly divided in the two study groups. Occlusive pastes of the air-dried materials of henna leaves (15-30gr/each foot) were applied for 8 hours in the first and fifteenth days of one-month outdoor training period in one group (Received henna; RS). Mycologic survey was carried out by the foot-press method.

Results: Of total 194 trainees (RS 98, C 96) completed the trial 63 veterans (RS23.46% vs C 41.66%) clinically suffered. The most common clinical findings in the control group included vesiculobullous eruption (18.75%), hyperkeratotic type (16.66%), and maceration interdigitalis (6%). Of the total injuries of the RS group, papulosquamous eruption (hyperkeratotic) was more common followed by interdigital(18.35%, 4%, and 1%).The number of isolated colonies was 2-78 (colonies mean ±SD; 8 ±16) in the RS group and 0-86 (colonies mean ± SD; 12 ±18).The most species isolated were Microsporum audioni, Candida and Epidermophyton floccosum in both groups respectively. The mycological cure rate was 78.6% in RS group, compared to 31% in control group (P< 0.001). The main limitation was henna discoloration of skin and clothes. Phytochemical tests indicated that aqueous-methanolic extract of henna was positive for xanthones, sitosterol glycoside, coumarins and 2-hydroxy-1, 4- naphthaoquinone (Lawsone).

Conclusion: Lawsonia inermis Linn (henna) might be considered in prevention strategies for

march-related foot injuries.