

EFFICACY OF *IPOMEA PES-CAPRAE* OINTMENT AS AN ADD-ON THERAPY FOR JELLYFISH DERMATITIS: FINAL RESULT OF A SELF-CONTROLLED CLINICAL TRIAL

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Jellyfish sting is an important risk for among travelers who expose to seawater. In tropical countries, *Ipomea pes-caprae*, a medicinal plant, has been known as an effective treatment for jellyfish dermatitis. However, no clinical trial has been done to prove its efficacy. This was an open label, self-controlled clinical trial of *Ipomea pes-caprae* ointment in patient with jellyfish dermatitis. Adult patients with the onset of jellyfish dermatitis less than 7 days were invited to join. The investigator divided the dermatitis area of each patient into two parts (Test and Control area). Each patient received standard treatment depended on the severity of dermatitis in both areas. *Ipomea pes-caprae* ointment was applied only to the "test area" as an add-on therapy. Participants were re-evaluated 6 times in the 28-days study period. Primary outcome was the recovery time (non-active skin lesion) of both areas. The secondary outcomes were the duration of pain and itching after the treatment. Sixty patients with jellyfish dermatitis were enrolled. Their median age was 32 years, the majority of participants exposed to jellyfish on the day of enrollment. In total, 90% received topical steroid, 50% received oral antihistamine while 18% received oral prednisolone as standard treatment. The *Ipomea pes-caprae* ointment was applied to all patients but only on the test area. Time to non-active skin lesion in test area was shorter than control area (5.65 days VS 6.17 days, $p=0.009$). The duration of itching in test area was significantly less than the control area (3.33 days VS 3.73 days, $p=0.044$). However, there was no difference in duration of pain between test area and control area. Overall skin outcome (healing with/without scar) was the same in test and control area. We can conclude that *Ipomea pes-caprae* ointment was an effective add-on therapy in the treatment of jellyfish dermatitis. The recovery time and duration of itching in area that applied with the ointment were less than the control area. However, the overall skin outcome was the same in both areas.

PROTEIN-ENERGY MALNUTRITION IN COMMUNITY-BASED EDUCATION AND SERVICE (COBES) CENTERS IN WESTERN KENYA DURING THE PERIOD 2017-2018

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COBES programme enables students to participate in various community projects during the period of their study at the College of Health Sciences of Moi University. In their second year of study, they are attached to 20 health Centres for a period of six weeks where they participate in community entry and Diagnosis. They determine the nutritional status of the community in which they are attached. The results reported here are for the latest data collected during the period 2017-18. The Broad objective of the study was to determine the current nutritional status in COBES centres in Western part of Kenya. Cross-sectional studies were carried out in March and May 2017 and 2018 in 20 COBES Health Centres in Western Kenya. Cluster sampling technique was used with each Health centre as the sampling unit. Anthropometric measurements were performed on all children aged 5-59 months within the households sampled. The nutritional status of the children was determined using the WHO recommended Z- score values as well as the Kenya Government Ministry of health recommended charts based on anthropometric measurements. Analysis of nutritional data was carried out using Epi-info 2000 program to determine the Z- score values from anthropometric data. A total of approximately 700 children were sampled in the seven Health Centers: (Stunting- HAZ<-2, Wasting-WHZ <-2, underweight -WAZ<-2

and MUAC, < 12.5mm). Results showed anthropometric measurements taken to fall within the WHO recommended reference values for ' normal' nutrition as exemplified by Kabuchai (WHZ>-1, WAZ>-1, HAZ >-1 and MUAC >-1) and Mosoriot Health Centres (WHZ> -2, WAZ=0, HAZ >-1, MUAC >-1). Preliminary published results indicated that Metetei had the highest malnutrition prevalence (53% HAZ, 15% WHZ, 27% WAZ and 18.1 MUAC) whereas Chulaimbo showed the lowest prevalence (7% HAZ, 3% WAZ). The other centres showed mixed prevalence. Most COBES Health Centres showed improved nutrition status compared to previous results that showed one or two Centres to have extremely high malnutrition status.

OCCURRENCE OF TYPHOID FEVER COMPLICATIONS AND ASSOCIATED RISK FACTORS: A SYSTEMATIC LITERATURE REVIEW AND META-ANALYSIS

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Complications from typhoid fever (TF) disease have been estimated to occur in 10 to 15% of hospitalized patients with evidence of a higher risk in children and when there is a delay in implementing effective antimicrobial treatment. This study estimated the prevalence of complications in hospitalized, culture-confirmed TF patients, and the effects of symptom duration and age on the prevalence of complications. A systematic review and meta-analysis were performed using studies in the PubMed database. Any unfavourable evolution of the disease reported as a complication in a TF patient was considered a complication. We rated risk-of-bias of relevant publications and conducted random-effects meta-analyses. Analyses were stratified by symptom duration at hospital admission (SDA, <10 and ≥10 mean or median days of disease) and by age groups (children and adults). Differences in risk between SDA and age groups was assessed using odds ratios (OR) and 95% confidence intervals (CI). Heterogeneity and publication bias were evaluated. Twelve studies were included in the meta-analysis. The pooled prevalence of complications estimated among hospitalized TF patients was 25% (95%CI:20–29%, $I^2= 88.2\%$, $p=0.000$). The stratified analysis revealed a higher prevalence of TF complications among cases reporting SDA≥10 (36%, 95%CI:29–43%) compared to cases with SDA<10 (16%, 95%CI:13–18%), translating into a three times greater risk of complications for those with prolonged symptoms duration at hospital admission (OR=3.00, 95%CI:2.14–4.17, $p<0.0001$). Similar higher risks were observed in specific complications. Likewise, a higher prevalence of complications was observed in children (27%, 95%CI:19–35%) compared to adults (17%, 95%CI:9–25%), however, the increased risk was not significant (OR=1.15, 95%CI:0.89–1.49, $p=0.247$). This review found limited quality evidence concerning TF complications. The meta-analysis identified a higher overall prevalence of complications than previously reported and a strong association between duration of symptoms prior to hospitalization and risk of serious complications.

CLINICAL MANIFESTATIONS AMONG INDIVIDUALS BITTEN BY TRIATOMINES (KISSING BUGS) IN SOUTHERN ARIZONA

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