

Factors affecting outcome in patients with skin and soft infections including tropical myositis: a prospective study in a tertiary care hospital

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Skin and soft tissue infections constitute a high in our health system with significant morbidity and mortality. The factors affecting outcome have not been thoroughly studied prospectively, especially from our country. Tropical pyomyositis constitutes a higher proportion of SSTIs in our setting than described in literature. Study aimed to study the etiology and outcome of SSTIs, to establish the proportion of cases of SSTIs affected by tropical pyomyositis, and to evaluate factors associated with poor outcome in cases of SSTIs. This is a prospective observational, analytical study in a tertiary care hospital. Sixty-four (64) inpatients (moderate-to-severe SSTIs) were recruited, using defined clinical criteria for four subtypes: cellulitis, abscess, pyomyositis, and, necrotizing soft tissue infections. Clinical records were collected and maintained. With the main outcome as mortality, factors affecting the outcome were statistically analyzed using chi-square and Fischer's Exact tests ($p < 0.05$). Out of the 64 patients admitted there were 48 males and 16 females with mean age of 41.73. There were 39 patients of

necrotizing soft tissue infections, 11 patients each of tropical myositis and abscess, and, 3 patients of cellulitis. Mortality was observed in 12 patients (18.75%). Mortality in the four groups was 9/39 (23%) in necrotizing soft tissue infections, 3/11 (27.3%) in tropical myositis. There was no mortality observed in patients with abscess and cellulitis. The body parts involved were lower limb in 37 (58%) patients, perineum in 11 (17%) patients, upper limb in 9 (14%) patients, trunk in 7 (11%) patients. The proportion of tropical myositis admitted with us (15-20%) is higher than previously reported, especially in the summer and monsoon seasons. Most patients of SSTIs have no obvious etiological factor at admission. The significant factors associated with mortality in our patients are: history of trauma, pulse rate > 100 bpm, systolic blood pressure < 100 mm Hg, respiratory rate > 20 /min, raised body temperature, presence of bullae, body surface area $> 10\%$, presence of gangrene, skin discoloration, muscle necrosis, compartment syndrome, Hb ≤ 8 g/dL, blood urea > 50 mg/dL, serum creatinine > 1.2 mg/dL, serum bilirubin > 2.5 mg/dL, and, requirement of inotropes, dialysis, and blood products. All clinicians must keep possibility of tropical myositis in mind as this has to be treated more aggressively.