Conclusions

1. Extremity wound infection is associated with an increased risk of amputation and death, even after adjusting for sex, age and trauma severity

2. Predictors for wound infection are prior surgery, arrival to hospital >72 hours following injury, and elevated respiratory rate

Introduction

It is unknown to what extent wound infection itself is a factor contributing to serious complications following war-associated injuries. We have performed a retrospective analysis of civilians and combatants of both sexes and all ages admitted to an International Committee of the Red Cross hospital in Peshawar, Pakistan.

Aims

1. To assess whether wound infection following war-associated extremity injuries is an independent risk factor for amputation or death

2. To identify predicting factors for wound infection

Methods

Consecutive patients with war-associated extremity injuries, presenting within two weeks after injury, between September 27, 2010 and May 9, 2012 were included. Wounds with pus discharge were defined as infected. Revised Trauma Score (RTSc) was calculated by using systolic blood pressure, respiratory rate and Glasgow coma scale. Binary logistic regression models were used to evaluate the independent effect of wound infection on outcome.

Results

• N = 1033
• 108/1033 (11%) wound infection
• Mortality: 15/108 (14%) vs. 24/925 (3%), RR = 5.4
• Amputation: 16/108 (15%) vs. 79/925 (9%), RR = 1.7

1. INFECTION VS. NO INFECTION (adjusted for sex, age, RTSc)
   - Mortality: Odds ratio 9.23; 95% CI = 4.17 - 20.44 (p < .001)
   - Amputation: Odds ratio 1.90; 95% CI = 1.03 - 3.52 (p = .040)

2. SIGNIFICANT PREDICTORS (univariate analysis)
   - Arrival >72 h: Odds ratio 6.9 (p = .000)
   - Prior surgery: Odds ratio 4.1 (p = .000)
   - Respiratory rate: Odds ratio 1.1 (p = .015)

Future perspectives

We now aim to develop models to identify vulnerable patient groups and risk factors for wound infection.