Authors: anand kumar katiyar, subodh garg, amit gupta, biplab mishra, sushma sagar

SURGICAL SITE INFECTION RATES IN PATIENTS UNDERGOING TRAUMATIC LOWER LIMB AMPUTATIONS

Background:

Patient requiring amputation for lower limb crush injuries, due to road traffic injuries has been on the rise, especially in developing countries. However, there exists no consensus on the timing of stump closure in patients undergoing amputations, and decision varies from patient to patient. Delayed closure would prolong hospital stay while increasing costs while early closure has risk of infection and non delineation of damaged skin.

Methods:

With an aim to evaluate the rate of surgical site infection (SSI) and length of hospital, we proposed to conduct a prospective randomized comparative study in patients undergoing lower limb amputations following trauma. The study will be conducted from August 2018 to May 2019 at the JPN Apex Trauma Centre, AIIMS, New Delhi. Patient requiring immediate or delayed amputation for lower extremity trauma would be included for the study. However, patients undergoing guillotine amputations would be excluded. All patients would undergo amputations as per standard technique, patients would be randomized after myoplasty, and patients in group 1 would undergo primary skin closure, and patients in group 2 would be planned for delayed primary closure. Variables will be compared using unpaired t-test / Mann Whitney test and a p value of <0.05 would be considered statistically significant. The study has been proposed to continue atleast till a minimum of 30 patients have been recruited in both arms.

Results:

Till date, 45 patients have been recruited with 24 and 21 in groups 1 and 2 respectively. On preliminary analysis, there has been no significant difference in the rate of SSI between the two groups. Of the 24 in group 1, 8 patients had SSI, and 6 among 21 in group 2 had a similar outcome. The length of hospital stay was found to be more in patients undergoing delayed primary closure.

Discussion:

Although, there may not be statistically significant difference in the rate of SSI, the number of SSI in patients undergoing primary closure has been more. The lower rate of SSI in patients undergoing delayed closure comes at the compromise of extended hospital stay.