Evaluation of the effect of perioperative blood glucose level on surgical site infections in patients undergoing total mastectomy

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**Introduction:** Stress hyperglycemia during surgeries has been reported to increase the possibility of surgical site infections and worsen the patient's prognosis. The aim of the present study was to evaluate the association between perioperative blood glucose level and surgical site infections (SSIs) in patients undergoing mastectomy.

**Materials and Methods:** In this prospective case control study, 158 female patients undergoing mastectomy were included, with diabetes as an exclusive criteria. Blood glucose levels was measured in five phases for each patient.

**Results:** Among 158 studied patients, eight (5.5%) developed SSIs. 4 patients (2.74%) in the control group and 4 patients (50%) in the case group had hyperglycemia in at least one of the stages. Logistic regression analysis demonstrated associations between SSI development and any blood glucose value more than 150 mg/dl. Age, past medical history, current smoking, tumor characteristics, previous chemo-radiotherapy, duration of surgery and other surgical factors and prophylactic antibiotic did not seem to have a significant association with the SSI.

**Conclusion:** As hyperglycemia is an easily controllable factor, glycemic control during the perioperative period is recommended in patients undergoing breast surgeries to lower surgical site infection rate.