A Clinical Study of the Efficacy of Low Dose Tranexamic Acid for Blood Loss During Elective LSCS

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Abstract

Background: The incidence of cesarean section is on the rise generally throughout the world and particularly in countries like India. One of the important causes of morbidity and mortality in CS is perioperative blood loss. Hence minimizing the blood loss is important for better maternal outcomes. We in the present study tried to evaluate the effect of low doses of tranexamic acid on postoperative blood loss during lower segment cesarean section.

Methods: This prospective cross-sectional study was done in the Department of Obstetrics and Gynecology, Kalinga Institute of Medical Sciences, KIMS – Bhubaneswar. Inclusion criteria: all the singleton pregnancies being delivered by elective LSCS. A total of n=60 patients were included during the study period. They were divided randomly into two groups of n=30 of cases and n=30 of controls. The cases (study group) received injection tranexamic acid 1gm IV diluted with 10ml of distilled water slowly administered 10 minutes before the abdominal incision for CS and after informing the anesthetist the cases were given 10 units of oxytocin in a pint of DNS for 30 minutes after the delivery of the neonate. In the control group, tranexamic acid was not given and only 10 units of oxytocin in a pint of DNS were given by IV drip for 30 minutes. Estimation of blood loss done at intra-operative and post-operative intervals and total blood loss was calculated in both groups.

Results: The indications for LSCS in the cases and controls were studied the most common cause for LSCS was Cephalopelvic disproportion (CPD) in both n=16(53.33%). The breech presentation was seen in n=7(23.33%) of patients. The mean total blood loss in cases was 306.0 ml and in the controls, it was 421.1 ml the p values were found to be significant.

Conclusion: Tranexamic acid significantly reduces the amount of blood loss during the Lower segment cesarean section (LSCS) and its use in low doses was not associated with any significant side effects. Hence Tranexamic acid must be considered for use in patients where there is the anticipation of PPH.