

INTRAVENOUS TRANEXAMIC ACID IN THIRD STAGE OF LABOUR FOR PREVENTION OF POST-PARTUM HAEMORRHAGE

DR NAYAB SAAD^a, MR HASHEM EIHOSSAMY^b

^a: Registrar of obstetrics and gynaecology (MTI)

^b: Consultant of obstetrics and gynaecology

INTRODUCTION



Postpartum haemorrhage is a leading cause of maternal morbidity and mortality, responsible for nearly one-quarter of maternal deaths worldwide. Although uterotonics are the mainstay of prevention, additional effective interventions are needed. Tranexamic acid, an antifibrinolytic agent, inhibits fibrinolysis by blocking the conversion of plasminogen to plasmin, thereby stabilising blood clots and enhancing haemostasis. Its role in obstetrics is promising, particularly in counteracting the increased fibrinolytic activity that follows placental separation.

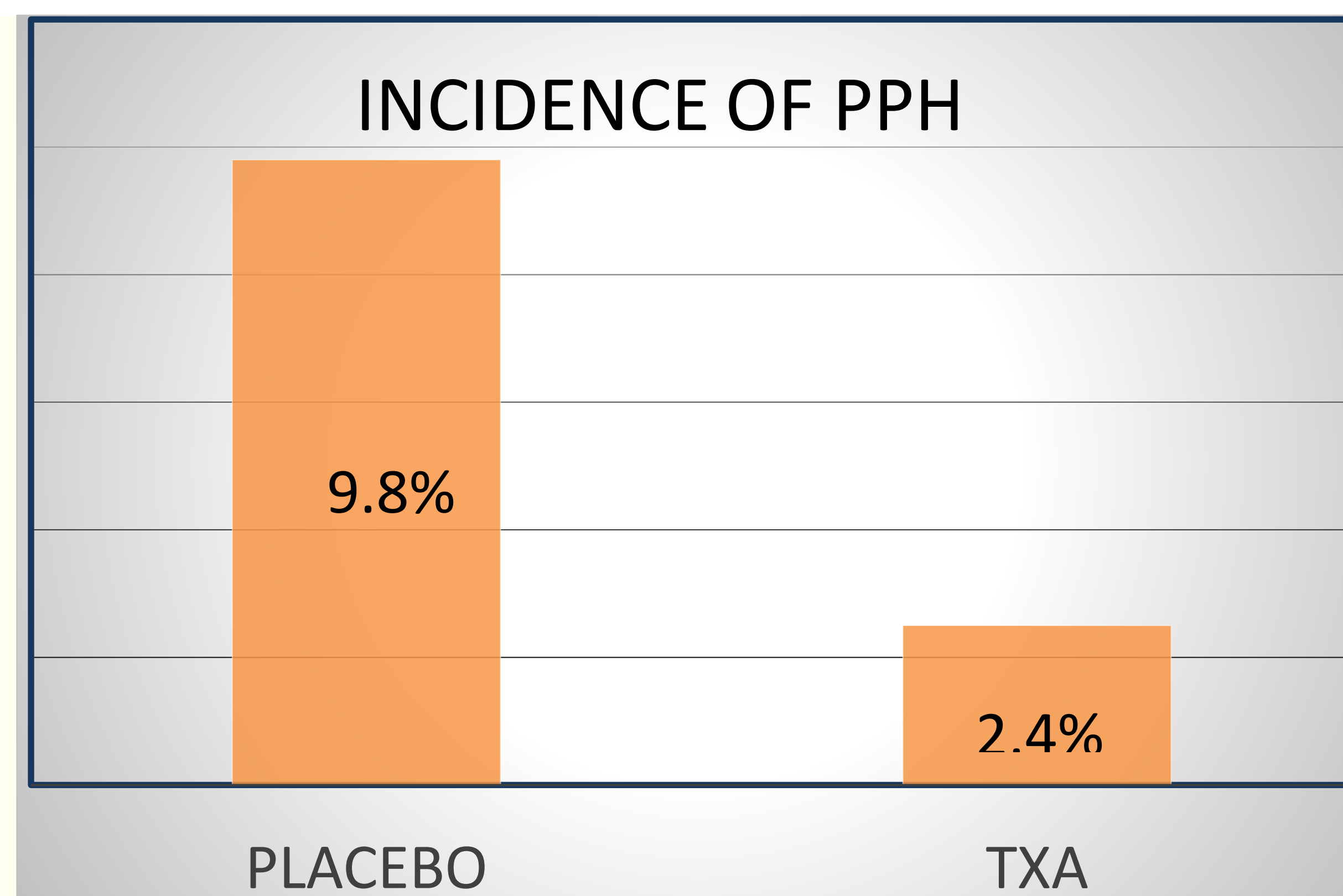
OBJECTIVE

To evaluate the efficacy of intravenous tranexamic acid (TXA) compared with placebo in the prevention of postpartum haemorrhage (PPH) following vaginal delivery. The primary hypothesis was that TXA administration at the time of delivery would significantly reduce the incidence of PPH.

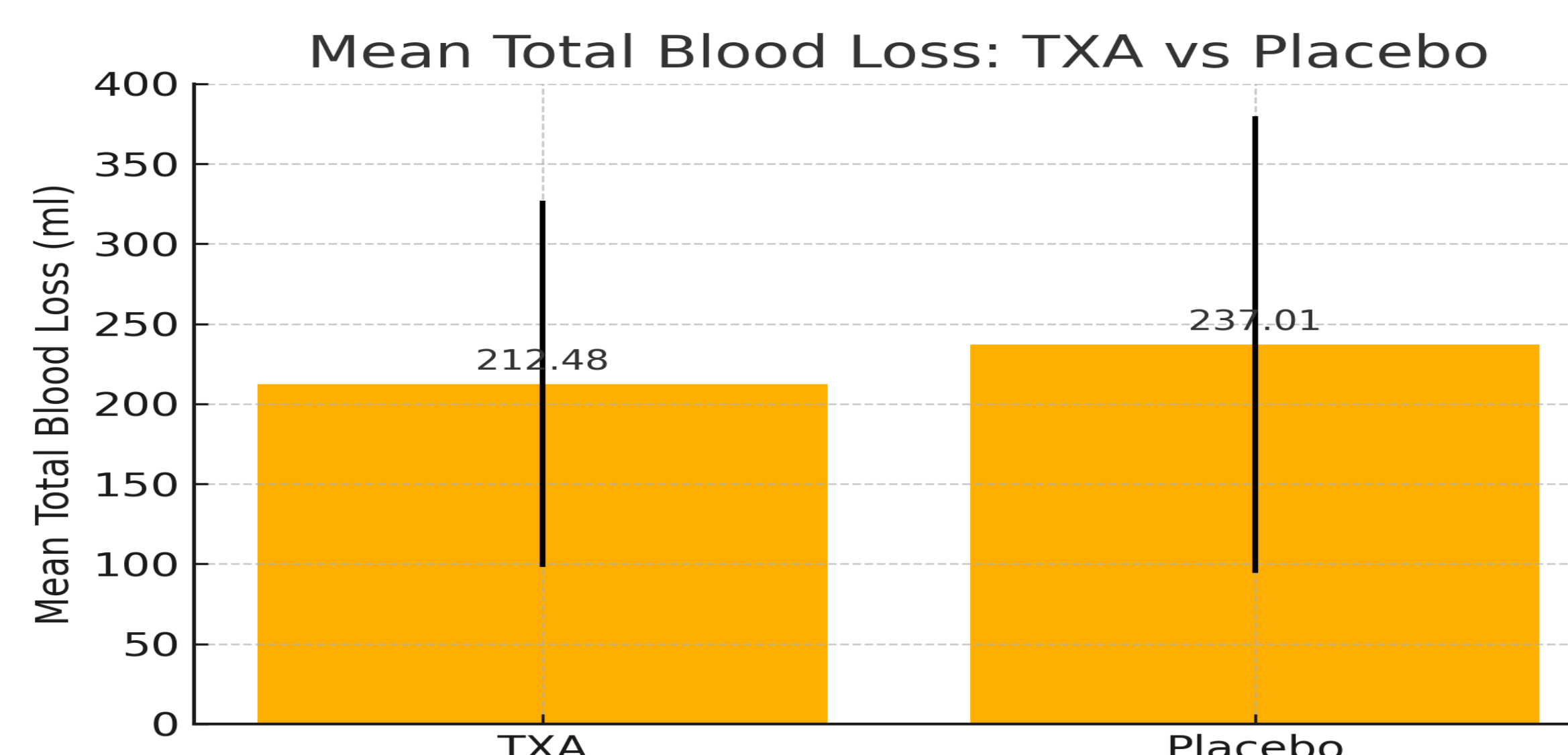
DESIGN

A randomised controlled trial was conducted over six months to compare outcomes between women undergoing vaginal delivery who received either TXA or placebo. The study aimed to assess the additional benefit of TXA when used alongside standard uterotonic management during the third stage of labour.

INCIDENCE OF PPH



GROUP	N	MEAN CHANGE HB (MG/DL)
TXA	205	0.46
Placebo	205	0.49



METHODOLOGY

The study included 410 pregnant women aged 18–40 years with a gestational age greater than 32 weeks and planned vaginal delivery of a cephalic fetus. The participants were randomly assigned to two groups: Group A (n=205) received 1g intravenous TXA over five minutes along with 5 IU intravenous oxytocin at the delivery of the anterior shoulder; Group B (n=205) received 10 ml intravenous normal saline (placebo) with the same oxytocin dose and timing. Blood loss was measured within three hours postpartum using gauze weighing, and haemoglobin levels were recorded pre- and post-delivery. The primary outcome was the incidence of PPH; secondary outcomes included total blood loss and haemoglobin change.

RESULTS

The incidence of PPH was significantly lower in the TXA group (2.4%, n=5) compared to the placebo group (9.8%, n=20), with a p-value of 0.002. However, differences in total blood loss (212.48±114.52 ml vs 237.01±142.65 ml, p=0.056) and haemoglobin change (0.46±0.42 g/dL vs 0.49±0.42 g/dL, p=0.572) between groups were not statistically significant.

CONCLUSION

Tranexamic acid significantly reduces the incidence of PPH when used as an adjunct to oxytocin during vaginal delivery. While its impact on total blood loss and haemoglobin change was not significant, these findings support its potential role in PPH prevention. Larger, multi-centre trials are recommended to confirm efficacy and inform routine clinical use.