

Comparison of the intraoperative outcomes of intrauterine instillation of E-Aminocaproic Acid and intravenous oxytocin in hysteroscopy surgeries

Mousazadeh R., M.D., Sayyah-Melli M., M.D.

Department of Obstetrics and Gynecology, Alzahra Hospital, Faculty of medicine, Tabriz University of Medical Sciences

Background

As the technique of choice, hysteroscopy can be used in visualizing and treating intrauterine pathologies such as polyps, septa, fibroids, and endometrial hyperplasia. The best visualization, however, is attained when the endometrium is flat or atrophic; or a preexisting active bleeding is minimal or suspended during hysteroscopy. Both E-aminocaproic acid and oxytocin have been found effective against active bleeding. The present work aimed to compare the efficacy and safety of intrauterine E-aminocaproic acid and intravenous oxytocin in the management of intractable uterine bleeding in candidates of hysteroscopy.

Methods & Materials

In this single-center, observer-blind clinical trial, 144 candidates of hysteroscopy with intractable moderate uterine bleeding randomized in two groups, receiving either intrauterine instillation of E-aminocaproic acid (2 grams in 1 liter of 5% dextrose serum, n=72) or intravenous oxytocin (10 IU/L, n=72). The operator graded the severity of intraoperational bleeding (I=no to V=most severe). Serum hematocrit and hemoglobin changes, intra- and post-operational complications, the mean operative time, and the mean volume of the employed media were also recorded and compared between the two groups.

Results

The two groups were comparable in terms of age, gravidity and parity. Grades I, II and III of intraoperational bleeding were reported in 79.2%, 18.1%, and 2.8% of cases in the E-aminocaproic acid group, and 18.2%, 65.3%, and 16.7% of the cases in the oxytocin group, respectively ($p < 0.001$). While the two groups were also comparable in terms of serum hematocrit and hemoglobin changes, intra- and

post-operational complications (none in both groups), and the mean volume of the used media intraoperatively, the mean operative duration was significantly shorter in patients who received intrauterine instillation of E-aminocaproic acid (10.28 ± 3.24 min vs. 11.81 ± 4.62 min, $p=0.02$).

Conclusion

Owing to less severe intraoperative hemorrhage and shorter duration of operation in the group who received intrauterine instillation of E-aminocaproic acid than those with intravenous injection of oxytocin, we recommend the former in managing intractable uterine bleeding in candidates of hysteroscopy.

Keywords: *E-aminocaproic acid, Oxytocin, Uterine Bleeding, Hysteroscopy*