

Myomectomy and Blood Loss: A Quality Improvement Project

Authors : Ena Arora, Rong Fan, Aleksandr Fuks, Kolawole Felix Akinnawonu

Abstract : Introduction: Leiomyomas are benign tumors that are derived from the overgrowth of uterine smooth muscle cells. Women with symptomatic leiomyomas who desire future fertility, myomectomy should be the standard surgical treatment. Perioperative hemorrhage is a common complication in myomectomy. We performed the study to investigate blood transfusion rate in abdominal myomectomies, risk factors influencing blood loss and modalities to improve perioperative blood loss. Methods: Retrospective chart review was done for patients who underwent myomectomy from 2016 to 2022 at Queens hospital center, New York. We looked at preoperative patient demographics, clinical characteristics, intraoperative variables, and postoperative outcomes. Mann-Whitney U test were used for parametric and non-parametric continuous variable comparisons, respectively. Results: A total of 159 myomectomies were performed between 2016 and 2022, including 1 laparoscopic, 65 vaginal and 93 abdominal. 44 patients received blood transfusion during or within 72 hours of abdominal myomectomy. The blood transfusion rate was 47.3%. Blood transfusion rate was found to be twice higher than the average documented rate in literature which is 20%. Risk factors identified were black race, preoperative hematocrit<30%, preoperative blood transfusion within 72 hours, large fibroid burden, prolonged surgical time, and abdominal approach. Conclusion: Preoperative optimization with iron supplements or GnRH agonists is important for patients undergoing myomectomy. Interventions to decrease intra operative blood loss should include cell saver, tourniquet, vasopressin, misoprostol, tranexamic acid and gelatin-thrombin matrix hemostatic sealant.

Keywords : myomectomy, perioperative blood loss, cell saver, tranexamic acid

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