Aims: The aim of this study is to evaluate postoperative adhesion related complications after myolysis or myomectomy during cesarean section.

Methods: This prospective study was conducted by the Department of Obstetrics and Gynecology, Hacettepe University Faculty of Medicine based on operations performed from January 2001 to December 2005. Small superficial fibroids, pedunculated fibroids and intramural/subserous fibroids less than 5 cm. at the fundus, anterior and posterior walls of the uterus are accepted to this study. This study is consisted of 4 groups of patients who underwent cesarean section: group I: myolysis (Figure 1) is performed by electric cauterization for small superficial fibroids less than 2 cm. (n: 21), group II: myomectomy (Figure 2) is performed for pedunculated fibroids (n: 18), group III: myomectomy (Figure 3) is performed for intramural/subserous fibroids less than 5 cm. (n: 23), group IV: control group (n: 19) repeat cesarean sections without myomectomy. All patients were operated and evaluated by single surgeon (MSB). Cases with perioperative infectious morbidity are not included to this study. Repeat cesarean section by same surgeon is performed to study subjects within 1-5 years. All cases are evaluated in terms of mild to moderate adhesions between omentum and uterus, mild to moderate adnexal area adhesions, mild to moderate incision area adhesions and surgical difficulty due to severe adhesions. There were no major complications in the first and repeat operations.

Results: This study included 81 cases. All groups were similar with respect to mean age, parity, and gestational age. There was no significant increase in the incidence of adhesion between omentum and uterus (p = 0.278), mild to moderate adnexal area adhesions (p = 0.831) and mild to moderate incision area adhesions (p = 0.804) at the intervention groups (group I, II, and III) compared to the controls (group IV). However, because of the small number of cases, the differences were not found to be statistically significant. Group I and IV had similar adhesion rates (19% vs. 21.1%). Furthermore, adhesion rates for pedunculated fibroids and intramural/subserous fibroids less than 5 cm. at the related complications after myolysis or myomectomy during cesarean section. In our study, mild to moderate “adhesions in-between omentum and uterus “and “adnexal plus incisional area adhesions” were observed to be 21.1 % and surgical difficulty due to severe adhesions was observed at 5.1 % of repeat cesarean sections (table 1). Our clinical understanding necessitates differentiation of adhesions due to their localizations and severity. Or otherwise produced information will be meaningless in routine clinical practice.

Cesarean myomectomy is not preferred due to an increased risk of intrapartum and short term postpartum complications. Myomectomy during cesarean section is usually performed for small pedunculated fibroids. However, many authors agree that myomectomy is a safe procedure during cesarean section. Hassialkos et al. found no statistically significant difference in-between the control and study groups in terms of hemoglobin levels, hospitalization time, intraoperative and periperal complications. Similarly, Kaymak et al. reported no statistically significant difference between the control and myomectomy groups in terms of hemorrhage, postoperative fever and frequency of blood transfusion. Roman and Tabsh have shown that myomectomy during cesarean delivery do not appear to result in an increased risk of intrapartum or short-term postpartum morbidity.

Although there are several studies about adhesions due to abdominal myomectomy or cesarean delivery, there is no study investigating postoperative adhesion formation after cesarean myomectomy. This is the first study evaluating post operative adhesions after cesarean myomectomy during the course of subsequent cesarean sections. Adhesions are classified according to their localizations and severity (Table 1).

The frequency of adhesion formation is higher in “pedunculated fibroids” and “intramural/subserous fibroids less than 5 cm." (Table 1). However, there was no statistically significant increase in the incidence of “adhesion formation between omentum and uterus”, “mild to moderate adnexal area adhesions” and “mild to moderate incisional area adhesions" at the intervention groups compared to the controls.

Conclusion: Cesarean myomectomy is a safe procedure and in the selected cases, myomectomy during cesarean section does not cause statistically significant increase in the formation of adhesions and surgical difficulties. We believe that further randomized studies are necessary for clear decision making.

References: