

# Abdelazim and AbuFaza technique for temporary bilateral uterine occlusion to decrease the blood loss during myomectomy: Case reports

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### ABSTRACT

The standard treatment of symptomatic fibroids is hysterectomy for women completed their childbearing and myomectomy for women desire future fertility. Myomectomy associated with life-threatening bleeding and emergency blood transfusion. The two studied cases were unmarried presented with multiple fibroid uterus of 28 and 24 weeks' gestation. Both the studied women refused hysterectomy because of their fertility potential. Myomectomy was done with removal of two big myomas (10x12 cm and 7x8 cm), three moderate size myomas (5x5 cm, 4x4 cm and 3x4 cm) and four small size myomas for the first case and removal of one big myoma (8x6 cm), four small size myomas for the second case. The hemoglobin difference was 0.6 and 0.4 gms% for the first and the second case; respectively and no blood transfusion was required for them. This report represents the outcome of Abdelazim and AbuFaza technique for temporary bilateral uterine occlusion to decrease the blood loss during myomectomy.

**Keywords:** Abdelazim, AbuFaza, blood, myomectomy, occlusion, uterine

### Introduction

The standard treatment of symptomatic fibroids is hysterectomy for women completed their childbearing and myomectomy for women desire future fertility.<sup>[1]</sup>

Myomectomy can be associated with life-threatening bleeding and emergency intra and/or post-operative blood transfusion.<sup>[1]</sup> Many options are available to decrease the bleeding and the blood loss during myomectomy and can be classified into; pre-operative and intra-operative options.<sup>[2]</sup> Preoperative options include pre-operative gonadotropin releasing hormone agonists (GnRh-agonist) or aromatase inhibitors in an attempt to shrink the myomas.<sup>[2]</sup> The

effectiveness of those pre-operative medications has been questioned regarding the potential loss of the surgical plane and increased surgical difficulty during myomectomy.<sup>[2]</sup> Intraoperative options include sub-capsular injection of the intravenous medications (oxytocin, tranexamic acid and vasopressin) and/or mechanical occlusion using tourniquet, ligating, clipping or coagulating at the level of the uterine artery insertion into the uterus.<sup>[1,2]</sup>

This report represents the outcome of two cases of multiple fibroid uterus, refused hysterectomy and managed by Abdelazim and AbuFaza technique for temporary bilateral uterine occlusion to decrease the blood loss during myomectomy.

### Case Reports

#### Case 1

A 35-year-old unmarried woman presented as multiple fibroid uterus of 28 weeks' gestation refused hysterectomy because of

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her fertility potential, discussed in the departmental meeting of the Obstetrics and Gynaecology department of Ahmadi hospital, Kuwait.

She was counselled for myomectomy with the use of Abdelazim and AbuFaza technique for temporary bilateral uterine occlusion using a peri-cervical tourniquet (Foley's catheter) to decrease the blood loss during myomectomy, possibility of blood transfusion and hysterectomy in cases of life-threatening bleeding. [Figure 1].

After she signed the informed written consent, pre-operative investigations and anaesthesia consultation, myomectomy was done with removal of two big myomas (10 × 12 cm and 7 × 8 cm), three moderate size myomas (5 × 5 cm, 4 × 4 cm and 3 × 4 cm) and four small size myomas (1-1.5 cm) [Figure 2].

The hemoglobin difference of the patient was 0.6 gms% (from 11.2 pre-operative to 10.6 gms% post-operative) and no blood transfusion was required either intra-operative and/or post-operative. The total weight of the excised myomas was 1.550 Kg. [Figure 3].

## Case 2

In another case, a 32-year-old unmarried woman with multiple fibroid uterus 24 weeks' gestation refused hysterectomy because of her fertility potential. She was counselled for myomectomy with the use of Abdelazim and AbuFaza technique for temporary bilateral uterine occlusion using a peri-cervical tourniquet (Foley's catheter) to decrease the blood loss during myomectomy, possibility of blood transfusion and hysterectomy in cases of life-threatening bleeding after departmental approval.

After she signed the informed written consent, pre-operative investigations and anaesthesia consultation, myomectomy was done with removal of one big myoma (8 × 6 cm), four small size myomas (1-2 cm). [Figure 4].

The hemoglobin difference of the patient was 0.4 gms% (from 11.5 pre-operative to 11.1 gms% post-operative) and no blood transfusion was required either intra-operative and/or post-operative. The studied cases discharged home on the 5<sup>th</sup> post-operative day in good general condition.

## Discussion

A Cochrane review including 18 RCTs with 1250 participants conducted to assess the interventions used to reduce blood loss during myomectomy and recommended further well-designed studies to establish the effectiveness and safety of different interventions for reducing blood loss during myomectomy.<sup>[1]</sup>

Although, the Cochrane review found low-quality evidence supporting the effect of peri-cervical tourniquet to reduce blood loss during myomectomy.<sup>[1]</sup> Ji *et al.* concluded that



**Figure 1:** Multiple fibroid uterus 28 weeks' gestation size with the applied tourniquet at the level of the uterine vessels



**Figure 2:** Excised myomas during myomectomy of the first case (two big myomas (10 × 12 cm and 7 × 8 cm), three moderate size myomas (5 × 5 cm, 4 × 4 cm and 3 × 4 cm) and four small size myomas (1-1.5 cm))



**Figure 3:** Weight of the excised myomas of the first case (1.550 Kg)

temporary bilateral uterine artery occlusion during laparoscopic myomectomy using titanium clips offers a possible option to reduce blood loss effectively.<sup>[3]</sup> Recently, Jin *et al.* concluded that laparoscopic myomectomy with temporary bilateral uterine artery and utero-ovarian vessels occlusion has the advantages of less intraoperative bleeding compared with laparoscopic myomectomy with uterine artery ligation.<sup>[4]</sup>



**Figure 4:** Excised myomas of the second case (one big myoma (8 × 6 cm)) and four small size myomas measuring (1-2 cm)

In addition to this, Sanders *et al.* systematic review concluded that uterine artery occlusion at myomectomy associated with decreased surgical blood loss and transfusion rate compared with controls.<sup>[5]</sup> Tranoulis *et al.* meta-analysis concluded that laparoscopic uterine occlusion during laparoscopic myomectomy improves intra and post-operative outcomes in women with symptomatic leiomyomas.<sup>[6]</sup> Zakhari *et al.* found that the effect of uterine artery occlusion to reduce the blood loss and blood transfusion during myomectomy supported by a systematic review and meta-analysis.<sup>[7]</sup>

The two studied cases presented with multiple fibroid uterus 28 and 24 weeks' of gestation, refused hysterectomy because of being unmarried and because of fertility potential and managed by Abdelazim and AbuFaza technique for temporary bilateral uterine occlusion using the Foley's catheter as peri-cervical tourniquet to decrease the blood loss during myomectomy.

Two big myomas (10 × 12 cm and 7 × 8 cm), three moderate size myomas (5 × 5 cm, 4 × 4 cm and 3 × 4 cm) and four small size myomas (1-1.5 cm) were excised during myomectomy of the first studied case. One big myoma (8 × 6 cm), four small size myomas (1-2 cm) were excised during myomectomy for the second studied cases. The hemoglobin difference of the first and second studied cases were 0.6 and 0.5 gms %, respectively. No blood transfusion needed either intra-operative and/or post-operative during myomectomy for the two studied cases.

It is clear that the use of Abdelazim and AbuFaza technique for temporary bilateral uterine occlusion using the Foley's catheter as peri-cervical tourniquet during myomectomy decreased the blood loss during myomectomy as evident by the minimal hemoglobin drop and avoidance intra or post-operative blood transfusion for the two studied women. Large studies are going to establish the effectiveness of Abdelazim and AbuFaza technique for temporary bilateral uterine occlusion in reducing the blood loss during myomectomy.

## Conclusion

Abdelazim and AbuFaza technique for temporary bilateral uterine occlusion using the Foley's catheter as peri-cervical tourniquet during myomectomy, decreased the blood loss during myomectomy as evident by the minimal hemoglobin drop and avoidance intra or post-operative blood transfusion for the two studied women.

**Research involving Human Participants:** A departmental approval and a written consent were taken from the studied women to publish their data for scientific activity.

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## Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form, the patient(s) has/have given his/her/their consent for his/her/their images and other clinical information to be reported in the journal. The patients understand that their names and initials will not be published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

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## Conflicts of interest

There are no conflicts of interest.

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