

# OUTCOME OF ABDOMINAL MYOMECTOMY

RAZIA IFTIKHAR

## ABSTRACT

*Objective* To find out the results of in abdominal myomectomy in terms of complications and fertility.

*Study design* Descriptive study.

*Place & Duration of study* Jinnah Medical and Dental college & Hospital, Baqai Medical University and other private hospitals where author practiced from January 2003 to January 2009.

*Patients and Methods* The study included all women who underwent abdominal myomectomy. Indications for surgery were menorrhagia, abdominal mass, dyspareunia, infertility, repeated abortions and chronic pelvic pain. Patients who had endometriosis, adenomyosis, ovarian cyst and those whose spouse had abnormal semen analysis, patient not desirous for further pregnancies and malignancies were excluded. All patients had routine pelvic ultrasound and hysterosalpingogram before and after surgery.

Morbidity such as intra operative blood loss, injury to adjacent viscera, trauma to the tubes, febrile morbidity, wound haematoma, infection, fertility, recurrence of myoma, adhesion formation were noted. All patients were followed at 3, 6 and 12 monthly interval. The analysis was performed by using SPSS version 10. Frequency and percentages were computed for presentation of all categorical variables.

*Results* A total of 50 abdominal myomectomies were performed during the study period. Mean age of the patients was 36 years with parity of 0 -2. Duration of operation ranged between 60 – 90 minutes. Blood loss varied between 1800ml – 2500ml. Hospital stay was between 5–7 days. Fibroid size ranged between 5 – 7cm. Uterine cavity got opened in 5(10%) cases. In 10(20%) patients myomas had distorted the tubes bilaterally and trauma resulted during surgery. Febrile morbidity was noted in 7(14%) cases, vaginal discharge in 2(4%) and lower abdominal pain in 5(10%). Uterine cavity of reduced size in 7(14%) patients and bilateral tubal blockage in 10(20%) cases were noted on hysterosalpingogram. At follow up two patients conceived at 12 months and one patient at 24 months.

*Conclusion* Abdominal myomectomy is a preferred treatment for women who want to become pregnant in future and is associated with fewer complications.

*Key words* Myomectomy, Fertility, Complications.

## INTRODUCTION:

Myomectomy is a surgical procedure in which fibroid

tumors are removed while uterus is preserved in women of child bearing age.<sup>1</sup> Myomectomy is a safe procedure in experienced hands. Approach to large fibroids (> 5 cm) irrespective of their location should be considered individually in women of reproductive age.<sup>2</sup> Open myomectomy should be the choice when there are large subserosal or intra mural fibroids, multiple fibroids or entry into the uterine cavity during surgery is to be

Correspondance  
Dr. Razia Iftikhar  
Department of Obstetrics & Gynaecology  
Baqai Medical University  
Karachi.

be expected.<sup>3</sup> Uterine fibroid is the most common female pelvic mass occurring in about 15-30 % of women in reproductive age group. Fertility after primary myomectomy has been reported between 20-50 % and up to 75 % of these pregnancies take place in the first year after surgery.<sup>4,5</sup> The aim of this study was to find out the morbidity and the natural pregnancy outcome after the procedure.

#### **PATIENTS AND METHODS:**

This descriptive study included women who underwent abdominal myomectomy for relief of their symptoms particularly with preservation of reproductive capabilities at Jinnah Medical and Dental college & Hospital, Baqai Medical University and other private hospitals where author practiced from January 2003 to January 2009.

Indications for surgery were menorrhagia, abdominal mass, dyspareunia, infertility, repeated abortions and chronic pelvic pain. Exclusion criteria were patients who had endometriosis, adenomyosis, ovarian cyst, those whose spouse had abnormal semen analysis, patient not desirous for further pregnancies and malignancies.

All patients had routine investigations including pelvic ultrasound and hysterosalpingogram pre and postoperatively. All patients were counselled and signed an informed consent. Myomectomy was performed by enucleating all fibroids and large blood vessels were clamped and tied. The uterine defect was closed with chromic catgut. Prophylactic antibiotic was given to all patients. Morbidity such as intra operative blood loss, injury to adjacent viscera, trauma to the tubes, febrile morbidity, wound haematoma, infection and long term complications like fertility results, recurrence of myoma, adhesion formation and repeat myomectomy were noted. All patients were followed at 3, 6 and 12 month interval. The data was analysed by using SPSS version 11. Frequencies and percentages were computed for all categorical variables.

#### **RESULTS:**

The study included 50 women. The mean age was 36 years and parity of 0 – 2. The weight of the patients ranged between 52 – 75 kg. Duration of operation was between 60 – 90 minutes. Operative blood loss varied from 1800 ml to 2500 ml. Three(6%) patients were transfused during surgery and 3(6%) needed blood post operatively. Hospital stay was between 5–7 days. Fibroid ranging between 5-7 cm were enucleated. Uterine cavity was opened in 5(10%) of cases. There was no injury to adjacent viscera. In 10(20%) cases the myomas had distorted the uterine tubes bilaterally and trauma occurred during surgery because of close proximity to the tumor. Post operative fever of 38.5 °C to 39 °C was noted in 7 (14%) cases of whom 3(6%) had urinary tract infection, 3(6%) had chest infection

and 1(2%) wound infection. Wound haematoma was noted in one patient. Delayed return of bowel sound noted in 3(6%), vaginal discharge in 2(4%) and lower abdominal pain in 5 (10%) cases.

Hysterosalpingogram done post operatively in all cases showed bilateral tubal blockage in 10(20%) women. Uterine cavity was reduced in another 7(14%) cases. At 12 months 2 (4%) of our patients conceived and one became pregnant after 24 months spontaneously. The menstrual cycle was regained in almost all cases within 6 months of surgery. In 3 (6%) of cases cyclical lower abdominal pain occurred after 6 months probably due to adhesions.

#### **DISCUSSION:**

Abdominal myomectomy is an old surgical procedure and a well established alternative to hysterectomy for women to preserve their fertility.<sup>6,7</sup> This procedure has good results and fewer complications and problems.<sup>8,9</sup> Major complications include organ damage including uterus, fallopian tube, ovaries, bladder and / or ureter, damage to intestine, nerve injury and anaesthesia complications.<sup>10</sup> In our study 7(14%) patients had post operative fever of 38.5 °C or higher. Studies have shown that there is marked reduction in febrile illness following the use anti inflammatory agents like ketorolac.<sup>11,12</sup> Our study has similar findings of febrile morbidity and other complications like that of Annette.<sup>4</sup>

In another study on the effect of race and clinical factors on short term outcome of abdominal myomectomy it was concluded that black women undergoing myomectomy were more than twice as likely to have in hospital complications or requiring blood transfusion than white women. This was largely attributed to uterine size and leiomyoma number.<sup>13</sup> One study concluded that a single dose of misoprostol in abdominal myomectomy decreased intraoperative blood loss, operation time and need for blood transfusion significantly.<sup>14</sup> There are studies indicating that ligation of uterine arteries reduced the blood loss during operation and resulted in complete resolution of fibroid related menorrhagia and has potential to prevent fibroid recurrence and also fertility potential is not compromised.<sup>15,16</sup> Vasopressin was also found to be the haemostatic agent as it reduce the blood loss and need for blood transfusion.<sup>17</sup>

Few studies have shown that pregnancies following uterine artery embolization had higher rate of preterm delivery and malpresentation than laparoscopic myomectomy. Similarly spontaneous abortion and post partum haemorrhage were significantly higher.<sup>18,19</sup> In another study the pregnancy rate before myomectomy was 20% and 70% after myomectomy and pregnancy

loss was 69% and 85% and live birth 30% and 75% respectively.<sup>20</sup>

There is a higher intraoperative and postoperative morbidity and poor fertility outcome after secondary myomectomy. One study of 131 women with significant fibroids of at least 5 cm in diameter, who underwent myomectomy either by laparotomy or laparoscopy, concluded that laparoscopic myomectomy had a lower incidence of febrile morbidity of > 38°C (12.1% versus 26.2% - p< 0.05) and a less drop in haemoglobin (1.33 + 1.23 versus 2.17 + 1.57; p< 0.001). Postoperative stay was shorter in laparoscopic myomectomy group while three patients received blood transfusion after laparotomy. In one study a high rate of spontaneous uterine rupture was reported following laparoscopic myomectomy. A complication rate of 11% following laparoscopic myomectomy was reported in comparison to 35% for abdominal myomectomy.<sup>11</sup>

### CONCLUSIONS:

Abdominal myomectomy is a successful approach for large and multiple fibroids resulting in distortion of normal anatomy of uterus. It is preferred method in those patients who want to become pregnant. With correct approach it has few complications with potential of some patients conceiving while others becoming symptom free.

### REFERENCES:

1. Myers ER, Barber ND. Management of uterine leiomyomata: What do we really know? *Am J Obstet Gynecol* 2002;100:8-17.
2. Held BI, Michels A, Bianco J, Ascher-waish C. The effect of ketorolac on post operative febrile episodes in patients after abdominal myomectomy. *Am J Obstet Gynecol* 2002;187:1450-55.
3. Zreik TG, Ratherford TJ. Cryomyolysis, a new procedure for the conservative treatment of uterine fibroids. *J Am Assoc Gynecol laparosc* 1998;5:33- 8.
4. Annette I, La Morte, Lalwani S, Diamond M. Morbidity Associated with abdominal myomectomy. *Am J Obstet Gynecol* 1993;82:897-900.
5. Kunde DK, Khalaf Y. Morbidity of abdominal myomectomy: Dispelling the myth. *Gynecol Surg* 2005;5:82-8.
6. Farquhar C, Brown PM, Furness S. Cost effectiveness of pre-operative gonadotrophin releasing analogues for women with uterine fibroids undergoing hysterectomy or myomectomy. *Br J Obstet Gynecol* 2003; 110:712-3.
7. Roth TM, Gustilo-Ashby T. Effects of race and clinical factors on short-term outcomes of abdominal myomectomy. *Am. J Obst Gynecol* 2003;101:881-4.
8. Vercellini P, Madalena S, Giorgi OD, Aimi G, Erosignani PG. Abdominal myomectomy for infertility: a comprehensive review. *J Hum Rep* 1998;13:873-9.
9. Subramanian S, Clark MA, Isaacson K. Outcome and resource use associated with myomectomy. *Am. J Obst Gynecol* 2001;98:583-7.
10. Celik H, Sapmaz E. Use of single preoperative dose of misoprostol is efficacious for patients who undergo abdominal myomectomy. *Am J Fertility sterility* 2003;79: 1207-10.
11. Frederick J, Hardie M, Reid M, Fletcher M, Wynterand S, Frederick C. Operative morbidity and reproductive outcome in secondary myomectomy: a prospective cohort study. *J Hum Rep* 2002;17: 2967-71.
12. Liu W, Tzeng C, Yi C, Wang P. Combining the uterine depletion procedure and myomectomy may be useful for treating symptomatic fibroid. *82:205-10.*
13. Frederick J, Fletcher J, Simeon D, Mullings A, Hardie M. Intramyometrial vasopressin as a haemostatic agent during myomectomy. *Br J Obstet Gynecol* 2005; 101: 435-7.
14. Bajekal N, Li TC. Fibroid, infertility and pregnancy wastage. *Hum Rep* 2000;6:614- 20.
15. Guarnaccia MM, Rein M. Traditional surgical approaches to uterine fibroid: Abdominal myomectomy and hysterectomy. *Clin Obstet Gynecol* 2001;44:385-400.
16. Fauconnier A, Dubuisson B, Ancel PY, Chapron C. Prognostic factors of reproductive outcome after myomectomy in infertile patients. *J Hum Rep* 2000;15:1751-7.
17. Donnez J, Jadoul P. What are the implications of myomas on fertility. *Hum Rep* 2002;17:1424-30.

18. Goldberg J. Pregnancy outcomes after treatment for fibromyomata: uterine artery embolization versus laparoscopic myomectomy. *Am J Obstet Gynecol* 2004;191:18-21.
19. Marchionni M. Reproductive performance before and after abdominal myomectomy: a retrospective analysis. *Fertility Sterility* 2004;82:154-9.
20. Soriano D, Dessolle L, Poncelet C, Benifla JL, Madelenat P, Darai E. Pregnancy outcome after laparoscopic and laparo converted myomectomy. *Eur J Obstet. Gynecol* 2003;108:194-8.