INTRODUCTION

Uterine fibroids are benign and common in about 20% of women over 35 years of age. They are clinically apparent in up to 25% of all women, increasing to 30–40% of women over 40 years of age. Uterine fibroids can cause excessive menstrual flow, menstrual disorders, and pelvic sense of urgency besides other symptoms. Reproductive functions may also be compromised, leading to subfertility and early pregnancy loss. For uterine fibroids there is no effective drug therapy, surgery (hysterectomy or myomectomy) is the main treatment. Abdominal myomectomy has classically been viewed as a procedure associated with high intraoperative and postoperative morbidity. The need for blood transfusion and blood loss is believed to be higher with myomectomy than with hysterectomy but this opinion is not well substantiated in the literature. The studies appeared in the literature described a few operative complications such as blood loss and low febrile morbidity suggesting that myomectomy may be an attractive alternative to hysterectomy in selected cases. Myomectomy is an alternative to hysterectomy for women who wish to retain their uterus for potential future child bearing or improve pregnancy outcome after repetitive miscarriages; it is also the choice of women who want to retain their uterus for any reason. Women who plan future pregnancies should be informed that cesarean delivery will be advised if extensive dissection of the myometrium was necessary to perform the myomectomy. The patient should wait for 4–6 months after myomectomy before attempting to conceive if the myometrium is significantly disrupted. This retrospective analysis of cases was done to assess the morbidities over a five year period.

METHODOLOGY

A retrospective study of all women who had abdominal myomectomy between Jan 2012 to Dec 2016 at Abbas Institute of Medical Sciences/Azad Jammu & Kashmir Medical College, Muzaffarabad was performed after approval from Hospital Ethical Committee. Particular attention was paid to amount of blood loss, blood transfusion, and febrile morbidity associated with the procedure.

Estimated blood loss was obtained from the surgeon’s operative notes. It was calculated by subtracting total irrigation fluid used from the total amount of fluid in the suction, the suction container at the end of surgery, then adding the amount of blood on the sponges, determined by weight. Ethical approval for article was obtained from Hospital Ethical Committee. The data collected was analyzed using SPSS-17. Chi-square test was applied and p<0.05 was taken as statistically significant.
such as heavy menstrual bleeding, ovarian cysts, pelvic pain, pelvic mass, and infertility, age less than 45 years. Women were excluded from this study for age greater than 45 years, preoperative febrile illness or infection, pregnancy and intended vaginal hysterectomy. The data was analysed on SPSS-17. Chi-square test was applied and p<0.05 was taken as statistically significant.

RESULTS
A total of 116 patients underwent abdominal myomectomies during 60 months period. Their ages ranged from 20 to 44 years with a mean of 33.43, out of which, 24 (20.7%) patients were single, 19 (16.4%) had no children and 73 (62.93%) were of parity 1-6.

One hundred (86.2%) patients had no medical problems. Table-1 shows patients’ various medical problems before the procedure.

The two most common indications were fibroid and menorrhagia. Sixteen (13.7%) patients had more than one indication. Table-2 lists the indications for abdominal myomectomy.

The average blood loss was (320±25 ml). One hundred and twelve (96.5%) patients had blood loss of 100 ml to 1,000 ml, 3 (2.6%) patients had blood loss from 1,110 ml to 1,400 ml and 1 (0.9%) patient lost 1,500 ml. A uterine tourniquet had to be applied in 36 patients, and Pitressin (Parke Davis, made by diluting 10–20 units in 40–50 ml of normal saline) were used in 42 patients to diminish blood loss. In 38 patients, no prophylactic haemostatic measures were taken. Blood loss was 370±40 ml in patients who had Pitressin, 450±40 ml in patients who had tourniquet and 750±40 ml in those who had no haemostatic measure (p<0.05).

Ninety-nine (85.3%) had no intra-operative or postoperative blood transfusion, 1 (0.9%) had one unit, 13 (11.2%) had 2 units, and 3 (2.6%) received 4 units of blood. The quantity of blood transfused ranged from 1 to 4 units.

Febrile morbidity occurred in 26 (22.4%). The reasons for febrile morbidity were unknown in 15 patients, urinary tract infection in 5 patients, and chest complications in 6 patients. There were no intra-operative complications. Table-3 lists the postoperative complications. Hospital stay ranged from D3 to D12, and mean was 4.58. There was no mortality and no re-admission.

Table-1: Medical problems of the patients

<table>
<thead>
<tr>
<th>Problem</th>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>No problems</td>
<td>100</td>
<td>86.2</td>
</tr>
<tr>
<td>Hypertension</td>
<td>3</td>
<td>2.5</td>
</tr>
<tr>
<td>Cardiac problems</td>
<td>1</td>
<td>0.9</td>
</tr>
<tr>
<td>Diabetes</td>
<td>10</td>
<td>8.6</td>
</tr>
<tr>
<td>Psychiatric</td>
<td>1</td>
<td>0.9</td>
</tr>
<tr>
<td>Asthma</td>
<td>1</td>
<td>0.9</td>
</tr>
</tbody>
</table>

Table-2: Indications for myomectomy

<table>
<thead>
<tr>
<th>Indication</th>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fibroid</td>
<td>85</td>
<td>73.3</td>
</tr>
<tr>
<td>Fibroid/Subfertility</td>
<td>7</td>
<td>6.0</td>
</tr>
<tr>
<td>Heavy menstrual bleeding</td>
<td>13</td>
<td>11.2</td>
</tr>
<tr>
<td>Fibroid/Ovarian cyst</td>
<td>2</td>
<td>1.7</td>
</tr>
<tr>
<td>Fibroid/Pain</td>
<td>7</td>
<td>6.0</td>
</tr>
<tr>
<td>Pelvic Mass</td>
<td>2</td>
<td>1.8</td>
</tr>
</tbody>
</table>

Table-3: Frequency of complications among women undergoing myomectomy

<table>
<thead>
<tr>
<th>Complication</th>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pyrexia</td>
<td>26</td>
<td>22.4</td>
</tr>
<tr>
<td>Wound infection</td>
<td>6</td>
<td>5.3</td>
</tr>
<tr>
<td>Burst abdomen/re-sutured</td>
<td>2</td>
<td>1.7</td>
</tr>
<tr>
<td>Urinary tract infection</td>
<td>5</td>
<td>4.3</td>
</tr>
<tr>
<td>Haemorrhage</td>
<td>3</td>
<td>2.7</td>
</tr>
</tbody>
</table>

DISCUSSION
The current treatments for uterine fibroids are many, but surgical resection is still the main treatment, including hysterectomy and myomectomy. With hysterectomy, uterine fibroids can completely be cured, but it cannot keep women’s reproductive functions. Despite the rate of relapse, myomectomy is still the most popular surgical treatment for fibroids in women.

With the increasing popularity of Laparoscopic surgery and endoscopic surgery, endoscopic suture techniques have been gradually recognised. However, there is need to improve proficiency in the operation. How to reduce the amount of intraoperative bleeding is still a matter of great concern. The only study that addressed morbidity associated with myomectomy in a large series of patients6 reported no major complications and no blood transfusions. Two other smaller series7,8 also reported no operative complications, no postoperative infections and no requirement for blood transfusion. In these three series myomectomies were performed exclusively by experienced surgeons.

In our series, average blood loss was 320±25 ml and out of 116 patients only one patient lost 1,500 ml; most of the surgeries were done by senior registrars or postgraduate trainees under supervision. Even with less experience 112 (96.5%) patients lost less than 1,000 ml of blood. In another study, intraoperative blood loss following myomectomy was considerably reduced than hysterectomy.12

We used tourniquet and/or vasopressin which also significantly reduced blood loss. In our series, vasopressin caused less blood loss than tourniquet. In a randomized placebo-controlled trial, the use of vasopressin significantly reduced operative blood loss.13 A single dose of vaginal misoprostol (400 μg) has also been successful.14 Various studies showed a single carbetocin injection used in postpartum haemorrhage had quite good effect.15–17 There are inadequate data to recommend one of these interventions over another.18
Rosenfield and Smith reported no postoperative febrile morbidity but did not note their criteria. LaMorte reported a 12% rate of febrile morbidity after myomectomy (maximum temperature 38 °C or greater after the first 24 postoperative hours). Gambone found a 10% febrile morbidity (maximum temperature 38.5 °C after the first 48 postoperative hours). We noted febrile morbidity of 22.4% which is almost double of LaMorte patients. The low rate of febrile morbidity by other authors may be explained in part by a restrictive definition of fever, i.e., the presence of a temperature over 38.5 °C excluding the first 48 hours. If we used this definition of fever but excluded only the first 24 hours, our rate of febrile morbidity would have been low because aetiology of fever 48 hours postoperatively would be more infectious rather than myomectomy itself.

One frequently suggested cause of myomectomy fever is hematoma formation in the myoma cavity. There is some support for this hypothesis in work examining fever in patients with fluid collections demonstrated by endovaginal ultrasound after hysterectomy. Further research in this area is necessary to elucidate the pathophysiology behind this frequently observed clinical entity. Other factors of high febrile morbidity here may be due to poor sterilization. These factors point towards infectious causes rather than myomectomy itself. In our study, patients receiving blood transfusion were less as compared to LaMorte study. All of our patients received bank blood while LaMorte patients received autologous blood.

Although we restricted our analysis to blood loss and febrile morbidity, a comprehensive comparison would also need to analyse costs, long term recurrence rates with need for further surgery, and long term progestin therapy in women starting hormone replacement therapy and retaining their uteri. Given that hysterectomy and myomectomy are more comparable than previously thought, patient preference should be incorporated into clinical decision making when choosing a procedure for surgical management of myoma.

CONCLUSION

The febrile morbidity rate in our series is comparable to rates reported for abdominal myomectomy and hysterectomy. Our rate of blood loss and transfusion is lower than those reported for abdominal hysterectomy. Myomectomy may be an attractive alternative to hysterectomy in selected women with uterine leiomyomata with an added advantage of preservation of women’s sexual and reproductive functions.

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REFERENCES


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