



Role of uterine conservative surgery in reproductive age group women

Authors

Dr Rajshree Gohaodkar, Dr Deshdeepak, Dr Shalini Gupta

Rajdeep Nursing Home & Infertility Centre

Email: shalini.1987.sg@gmail.com

Abstract

Introduction: Fibroids are the most common benign tumour in women of reproductive age that may cause severe dysmenorrhoea, bleeding, and infertility. There is an increased demand for uterus sparing treatments as more women postpone childbirth to their 30s-40s, when fibroids are more symptomatic. With an increasing choice of treatment options and changing care provider profiles, now is the time to survey current practices and opinions. Endoscopic myomectomy currently represents the standard minimally invasive surgical procedure for treating various fibroids in patients with AUB and reproductive issues being the most common indication.

Aims & Objectives- 1) fate of infertile patient after myomectomy

2) type of surgery for uterine conservation

3) fate of technique used

Material And Method: This retrospective study was carried out on 130 women (age 20-48 yrs) who presented at Rajdeep endoscopy and IVF centre Kota with symptomatic fibroids and infertility.

Results: In our study, maximum incidence of myoma was reported in age group between 20-40 yrs of age and most common fibroids were intramural 38.46 %. Pregnancy rate have reached 50-60% after both laparoscopy and abdominal myomectomy.

Conclusion: In current practice, myomectomy is the most common procedure offered to women seeking to retain their uterus. when performed by an experienced surgeon the procedure is safe and the morbidity is no greater than that of a hysterectomy

Keywords: Myoma, infertility, abnormal uterine bleeding, endoscopic myomectomy.

Introduction

Fibroids are the most common benign tumour in women of reproductive age that may cause severe dysmenorrhoea, bleeding, and infertility^[1]. Fibroids affects approximately 35-77% of reproductive age.^[2] Recent years have seen a demographic shift in child birth trends, with many women delaying starting the it families until their third or fourth decade. Therefore increasing demand for uterus sparing treatments, when fibroids are more symptomatic.

Fibroids are present in 5-10% of infertile patients, may be sole cause of infertility in 1-2.4% patients^[3,4]. Fibroids may cause infertility by obstructing the fallopian tube, impairing gamete transport and by distorting endometrial cavity.^[5,6] Reported incidence of fibroids in pregnancy ranges from 0.1% to 10.7% of all pregnancy.^[7,8] Fibroids increase the risk of pregnancy loss, specifically submucosal and intramural fibroids had notably higher rate of spontaneous abortion, and notably lower rates of live birth. Fibroids in

pregnancy have also associated with malpresentation of fetus and increase the risk of preterm labour.

Abnormal uterine bleeding is one of the most common gynaecological disorder affecting 10-30% of reproductive aged women and up to 50% of perimenopausal women. Furthermore, 25% hysterectomy is done for abnormal uterine bleeding.

With an increasing choice of treatment options and changing care provider profiles, now is the time to survey current practices and options. There are different approaches to myomectomy as it can be done laparoscopically, abdominal, vaginal and hysteroscopically. Endoscopic myomectomy currently represents the standard minimally invasive surgical procedure for treating various fibroids in patients with AUB and reproductive issues being the most common indication.

Aims and Objective

1. Fate of infertile patient after myomectomy
2. Type of surgery (open, vaginal, laparoscopic and hysteroscopic myomectomy) for uterine conservation.

Materials and Method

This retrospective research study was carried out on 130 women who presented at Rajdeep Endoscopy and IVF Centre, Kota. This study was done over a period of 3 years. Women varied from age 20-48 years and were having symptomatic fibroids or infertility of at least more than three years. The women had fibroids from 1 to 8 in number and 1 to 18 centimeter in size which were either submucous, intramural, serosal, cervical or broad ligaments, diagnosed by clinical and ultrasound examination. Various myomectomy procedures (hysteroscopic/ laparoscopic/open and vaginal) were planned according to symptoms and type of myoma.

Observation and Results

Table 1 Distribution of patient according to age

| Age (years) | Number of patient | Percent% |
|-------------------|-------------------|----------|
| Less than 20 year | 4 | 3 |
| 20-30 | 40 | 30 |
| 30-40 | 64 | 49.23 |
| Above 40 | 22 | 16.92 |

Table 2 Distribution of patient according to type of myoma

| Location of fibroid | Number of fibroid | Percentage% |
|----------------------|-------------------|-------------|
| Serosal | 10 | 7% |
| Submucosal | 30 | 23.07% |
| Intramural | 50 | 38.46% |
| Cervical | 1 | 0.76% |
| Myomatous polyp | 24 | 18.46% |
| Broad ligament polyp | 3 | 2.30% |
| Cornual | 4 | 3.07% |
| Multiple myoma | 21 | 16.15% |

Table 3 Distribution of patients according to type of myomectomy surgery

| Type of surgery | Number of patients |
|------------------------------|--------------------|
| Open | 18 |
| Vaginal | 15 |
| Hysteroscopic | 37 |
| Laparoscopic | 50 |
| Combined laparohysteroscopic | 12 |

Table 4 Distribution of patients according to symptoms

| symptoms | Number of patients | percentage |
|------------------------|--------------------|------------|
| AUB-L | 23 | 17.69% |
| AUB-P | 27 | 20.76% |
| Infertility | 62 | 47.69% |
| Large fibroid with c/c | 10 | 7.69% |
| d/g ANC | 4 | 3.07% |
| d/g c.s | 4 | 3.07% |

Table 5 Fate of infertile patients distribution

| Type of patient | Number of patients | percentage |
|---------------------------|--------------------|------------|
| Conceived within one year | 16 | 25.80% |
| Conceived within 2 year | 8 | 12.90% |
| Not yet conceived | 20 | 32.25% |
| Lost to follow up | 18 | 29.03% |

Discussion

During the reproductive years, the risk of myoma development increases with age. Myoma do not occur before puberty and there frequency decrease with menopause. Myomas are diagnosed in 20-25% of women of reproductive age, and 30-40% of women older than 40 year.^(9,10,11)

In our study maximum incidence of myoma was reported in age group between 20-40 years of age. Because this study was conducted in a infertility centre where reproductive age group patients are more than older patients therefore incidence of myoma in women older than 40 years was less reported that was 16.92%.

According to location of fibroid most common fibroid are intramural then submucosal. similar results was observed in our study like sumucosal myoma incidence 23.07% and intramural myoma 38.46% that was highest incidence among all myomas.

According to a relevent literature, 40-50% of all hysterectomies performed are because of presence of myomas. Myomas are the most common indication of hysterectomy. In our study uterine conservation was possible in 50 patients with abnormal uterine bleeding due to myoma.

In this study we did myomectomy by various methods incuding open myomectomy, vaginal myomectomy, hysteroscopic and laparoscopic, combined laprohysterocopic.

Sole purpose of myomectomy is to improve the fertility. Pregnancy rate have reached 50-60% after both laparoscopic and abdominal myomectomy, with god obstetrical outcome.^[12] Myomectomy is of proven benefit in infertility. In a study by Casini et al^[13] patient who underwent myomectomy for resection of submucosal fibroid, had higher clinical pregnancy rate when compared to patient with fibroids they did not undergo surgery (operated cases 43.3% pregnancy rate and unoperated cases 22.7% pregnancy rate). In our study, After Myomectomy 25.80% patients (n=16) were concieved within one year. Another 12.90% (n=8) patients concieved within 2 years.

In 3 infertile patients, endometrial cavity was opened, myoma bed was sutured with stratafix, no case of uterine rupture or scar dehiscence was seen. Antinatal patients with history of myomectomy were delivered safely at 38 week POG without any evidence of scar dehiscence.

As in all cases of suturing were done in layers both in open and laparoscopic myomectomy barb suture were used.

Conclusion

In current practice, myomectomy is the most common procedure offered to women seeking to retain their uterus. When performed by an experienced surgeon the procedure is safe and the morbidity is no greater than that of a hysterectomy.

References

1. Walker C, Stewart E. Uterine fibroids: the elephant in the room. *Science*. 2005;308:1589-92
2. Ezzati M, Norian J, Segers J. Management of uterine fibroids in the patient pursuing assisted reproductive technologies. *Womens Health (Lond Engl)* 2009;5:413-21.
3. Cook H, Ezzati M, Segars J, et al. The impact of uterine leiomyomas on reproductive outcomes. *Minerva Ginecol*. 2010;62:225–36
4. Benecke C, Kruger TF, Siebert TI, Van der Merwe JP, Steyn DW. Effect of fibroids on fertility in patients undergoing assisted reproduction. A structured literature review. *Gynecol Obstet Invest*. 2005;59:225–30
5. Rackow B, Taylor H. Submucosal uterine leiomyomas have a global effect on molecular determinants of endometrial receptivity. *Fertil Steril*. 2010;93:2027–34]
6. Sinclair D, Mastroyannis A, Taylor H. Leiomyoma Simultaneously Impair Endometrial BMP-2-Mediated Decidualization and Anticoagulant Expression through Secretion of TFG-β3. *J Clin Endocrinol Metab*. 2011;96:412–21.
7. Qidwai G, Caughey A, Jacoby A. Obstetric Outcomes in Women with Sonographically Identified Uterine

- Leiomyomata. *Obstet Gynecol* 2006; 107:376–382.
8. Laughlin S, Baird D, Savitz D, et al. Prevalence of Uterine Leiomyomas in the First Trimester of Pregnancy: An Ultrasound-Screening Study. *Obstet Gynecol*. 2009;113:630–5.
 9. Sparic R. Uterine myomas in pregnancy, childbirth and the puerperium. *Srp Arh Celok Lek*. 2014;142(1-2):118–124.
 10. Okolo S. Incidence, aetiology and epidemiology of uterine fibroids. *Best Pract Res Clin Obstet Gynaecol* 2008;22(4):571–588.
 11. Duhan N. Current and emerging treatments of uterine myoma- an update. *Int J Womens Health*. 2011;3:231–241
 12. Goldberg J, Pereira L. Pregnancy outcomes following treatment for fibroids: uterine fibroid embolization versus laparoscopic myomectomy. *Curr Opin Obstet Gynecol*. 2006;18:402–406.
 13. Casini M, Rossi F, Agostini R, et al. Effects of the position of fibroids on fertility. *Gynecol Endocrinol*. 2006; 22: 106–9.