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Research Article

Comparison of risk of abdominal hysterectomy versus myomectomy in the management of uterine fibroids: a comparative study

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ABSTRACT

Background: The incidence of leiomyomas ranges from 20 to 25% in women aged 30 years and above. Gynaecologists prefer abdominal hysterectomy over myomectomy due to a reported recurrence rate of 10% during a 5 year follow-up period. This study aimed to explore the differences in risk between abdominal myomectomy and hysterectomy in treatment of uterine fibroids.

Methods: The study was conducted at the department of obstetrics and gynaecology in a tertiary care hospital at puducherry during April 2016 by retrospective analysis of past records like patient charts and operative notes of myomectomies and hysterectomies conducted during the period of May 2013 to March 2016. Those abdominal hysterectomies and myomectomies done for uterine fibroids were included for the study.

Results: The study included a total of 145 subjects, 43 among them underwent abdominal myomectomy and 102 underwent total abdominal hysterectomy. There was a significant difference in age ($p < 0.001$) and parity ($p < 0.001$) between the two groups. Most of the anthropometric, intra-operative and post-operative parameters were not much different between the myomectomy and hysterectomy groups.

Conclusions: Myomectomy can be preferred over hysterectomy for managing uterine fibroids in young nulliparous and primiparous women who want to preserve their fertility for a pregnancy in the near future, as there is no significant difference in the intra/post-operative morbidity between the two surgeries.

Keywords: Abdominal myomectomy, Abdominal hysterectomy, Uterine fibroids

INTRODUCTION

In India where infertility is a social blemish in a women's life, the reproductive age group women do not opt to lose their uterus very early, but make all efforts to preserve it. Myomectomy is one alternative to preserve the uterus from being removed totally as done in a hysterectomy. The incidence of leiomyomas ranges from 20 to 25% in women aged 30 years and above.^{1,2} Myomectomy is not a favourite choice of a gynaecologist because of a recurrence rate of 10% during a 5 year follow-up period reported in different studies^{3,4} and higher morbidity/mortality outcomes. But some recent evidences preached that there is not much difference between myomectomy and hysterectomy in terms of

blood loss, postoperative morbidity, and complication rates.^{5,6} Considering that myomectomy is a fertility saving procedure which is the most judicial choice from the consumer's (patient's) side, the provider (gynaecologist) should also opt for the same if the risks involved are same for the alternative procedure i. e. abdominal hysterectomy. Hence this study was an attempt to explore the differences in risk between abdominal myomectomy and hysterectomy in treatment of uterine fibroids.

METHODS

The study was conducted at the Department of Obstetrics and Gynaecology, Sri Venkateshwaraa Medical College

Hospital and Research Centre, Ariyur, Pondicherry during April 2016 by retrospective analysis of past records of myomectomies and hysterectomies conducted in the hospital during the period of May 2013 to March 2016. Those abdominal hysterectomies and myomectomies done for uterine fibroids were included for the study. Abdominal hysterectomies done for any other indication and myomectomies done for infertility were excluded. The socio-demographic variables and anthropometric data were collected from the patient charts. Details regarding the size of the uterus and the myoma were determined from the pelvic ultrasonography and the final pathology reports. The time taken for the procedure from skin incision to closure, estimated blood loss, intra-operative or post-operative transfusions and length of hospital stay were obtained from the operative records.

Statistical analysis

Data entry and analysis was performed using STATA version 11 for windows. Student t-test, Chi square, and Fisher's exact test were used to determine any significant differences between the variables in the compared groups. A p-value of <0.05 was considered statistically significant.

RESULT

Table 1: Differences between subjects who underwent myomectomy and hysterectomy.

Variable parameters	Myomectomy n=43	Hysterectomy n=102	p value
Age	28.7 ± 3.50	36.5 ± 5.60	<0.001, HS
Parity	0.5 ± 0.3	2.18 ± 2.50	<0.001, HS
Height (cm)	152 ± 4.20	153 ± 6.60	0.36, NS
Weight (kg)	60.9 ± 14.8	62.9 ± 17.2	0.51, NS
Uterine size	13.4 ± 3.20	11.9 ± 3.10	0.01, HS
Size by ultrasound	12.3 ± 2.82	14.9 ± 6.10	0.08, NS
Size by histopathology	11.45 ± 2.42	13.2 ± 2.7	0.003, HS
Preoperative haemoglobin	10.45 ± 2.20	11.1 ± 2.1	0.95, NS
Postoperative haemoglobin	9.20 ± 2.1	9.32 ± 1.60	0.71, NS
Blood loss	619.7 ± 345.5	583.8 ± 385.6	0.59, NS
Intraoperative transfusion	0.37 ± 1.10	0.67 ± 1.61	0.27, NS
Postoperative transfusion	1.56 ± 0.45	1.46 ± 0.80	0.44, NS
Operative time (min)	93 ± 36	82 ± 50	0.19, NS
Hospital stay	6.80 ± 3.4	5.30 ± 2.85	0.07, NS

The study included a total of 145 subjects, 43 among them underwent abdominal myomectomy and 102 underwent total abdominal hysterectomy. There was a

significant difference in age ($p < 0.001$) and parity ($p < 0.001$) with majority of the subjects who underwent hysterectomy aged higher (mean age=36.5) than the myomectomy group subjects (mean age=28.7). Majority in the hysterectomy group were multiparous women (>2 deliveries) whereas those in myomectomy group were prim gravid and nulliparous women (<1 delivery). Most of the anthropometric, intra-operative and post-operative parameters were not much different between the myomectomy and hysterectomy groups.

DISCUSSION

The debate of whether the patient's or the surgeon's ease should be given a priority remains permanent on the stage of gynaecological surgeries. Patients usually prefer a non-invasive medical management or a uterine artery embolization over invasive procedures like myomectomies and hysterectomies. But when it comes to a point of no alternative than undergoing an invasive procedure, the consumer would prefer a myomectomy which would conserve their fertility rather than a total removal of the uterus (hysterectomy) leading to irreversible infertility and other gynaecological issues. Gynaecologists on the other hand feel that myomectomies have a relatively higher mortality, morbidity and recurrence rates, and prefer hysterectomy as surgical option to treat uterine fibroids. The issue of recurrence was addressed by Butram and Reiter⁴ who studied over 3000 myomectomies and reported a recurrence rate of 15% and 10% retreatment rate in myomectomies. The literature evidences suggest that the recurrence rate could be as high as 30%.⁷ The time duration after which recurrence happens should be studied by long term follow-up studies. This time duration, if large enough to accommodate a pregnancy in the post-myomectomy period, can render the purpose of myomectomy well achieved. Further Parker WH⁸ states that the presence of sub mucous myomas decreases fertility and their removal increases fertility to baseline rates. He also summarises that uterine rupture during pregnancy or delivery as a consequence of abdominal myomectomy is extremely rare. Hence as this study proves that the intra-operative and post-operative parameters in abdominal myomectomy are as similar to that of a hysterectomy and majority undergoing myomectomy were young nullipara which was similar to study done by Rouzi et al,⁷ the fertility saving myomectomy can be the first choice as an invasive modality before opting to hysterectomy.

CONCLUSIONS

The study showed that the intra-operative and post-operative parameters were not much different between the subjects who underwent myomectomy or hysterectomy. Hence the chance of preserving fertility should be given a higher priority than the surgical complications like recurrence and re-treatment by choosing myomectomy over hysterectomy for managing

uterine fibroids in young nulliparous and primiparous women who want to preserve their fertility for a pregnancy in the near future.

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REFERENCES

1. Vollenhoven BJ, Lawrence AS, Healy DL. Uterine fibroids: A clinical review. Br J Obstet Gynaecol. 1990;97:285-98.
2. Verkauf BS. Myomectomy for fertility enhancement and preservation. Fertil Steril. 1992;58:1-15.
3. Fedele L, Parazzini F, Luchini L, Messopane R, Tozzi L, Villa L. Recurrence of fibroids after myomectomy: a transvaginal ultrasonographic study. Hum Reprod. 1995;10:1795-6.
4. Buttram VC, Reiter RC. Uterine leiomyomata: etiology, symptomatology and management. Fertil Steril. 1981;36:433-45.
5. Iverson RE Jr, Chelmow D, Strohbehn K, Waldman L, Evantash EG. Relative morbidity of abdominal hysterectomy and myomectomy for management of uterine leiomyomas. Obstet Gynecol. 1996;88:415-9.
6. La Morte AI, Laiwani S, Diamond MP. Morbidity associated with abdominal myomectomy. Obstet Gynecol. 1993;82:897-900.
7. Rouzi AA, Al-Noury AI, Shobokshi AS, Jamal HS, Abduljabbar HS. Abdominal myomectomy versus abdominal hysterectomy for symptomatic and big uterine fibroids. Saudi Med J. 2001;22(11):984-6.
8. Parker WH. Etiology, symptomatology, and diagnosis of uterine myomas. Fertil Steril. 2007;87(4):725-36.

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