ISSN: 2581 – 3633
PubMed - National Library of Medicine - ID: 101745081

International Journal of Medical Science and Advanced Clinical Research (IJMACR)

Available Online at:www.ijmacr.com

Volume – 8, Issue – 2, March - 2025, Page No. : 157 – 160

Comparative Study of Open Myomectomy Vs Laparoscopic Myomectomy at Tertiary Care Hospital

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How to citation this article: Dr Harshitha R, Dr.Ravikanth G O, Dr.Geeta Doppa, "Comparative Study of Open Myomectomy Vs Laparoscopic Myomectomy at Tertiary Care Hospital", IJMACR- March - 2025, Volume – 8, Issue - 2, P. No. 157 – 160.

Type of Publication: Original Research Article

Conflicts of Interest: Nil

Abstract

Introduction: Myomectomy, a surgical procedure for the removal of uterine fibroids, is crucial for preserving the uterus and fertility in women.

The two primary approaches to myomectomy are open myomectomy (OM) and laparoscopic myomectomy (LM). Recent studies have demonstrated that LM is associated with reduced postoperative complications and faster recovery times compared to OM.

For instance, a systematic review revealed that laparoscopic techniques generally result in lower blood loss and shorter hospital stays[1].

Keywords: Myomectomy, Uterine Fibroids, Laparoscopic

Objectives

- To compare the effectiveness and safety of laparoscopic myomectomy versus open myomectomy.

Material and Method

Study Setting: A rural tertiary care teaching hospital in Sullia taluk, Karnataka, India

Study Period: Jan 2021 to August 2024

Study Design: Retrospective study

Sample size: This study analyzed 60 cases (30 OM and 30 LM) performed during the above-mentioned study period.

Sampling technique: convenience sampling

Methodology: Data from 60 patients, with regards to hemoglobin levels pre- and post-operatively, fertility outcomes, and postoperative recovery at day 4 were collected and compared.

Additional data on intraoperative complications, duration of hospital stay, and patient satisfaction were reviewed.

Selection criteria

Inclusion criteria

1. Women with confirmed diagnosis of uterine fibroids

2. Women of reproductive age (18-45yrs old) patient with a desire to conceive post surgery 3.Patient who underwent myomectomy as the primary treatment for uterine fibroids

Exclusion criteria

1. Women with other significant gynaecological condition (e.g.., endometriosis, adenomyosis) that may impact fertility
2. Women with known chromosomal abnormalities or genetic disorders that may affect fertility
3. Patients with severe comorbities(e.g.., uncontrolled diabetes, hypertension) that may complicate pregnancy
4. Women who underwent additional fertility treatments(e.g., IVF) during the follow up period as this may confound the results

Ethics Approval: Ethical approval was obtained from the Institutional Ethics Committee.

Statistical Analysis: The data was entered in Microsoft Office Excel 2007 and IBM SPSS version 21 was used for analysis. The data is represented in the form of frequencies and percentages.

Results

This study analyzed 60 cases (30 OM and 30 LM)

Table 1: Demographic details of the study population

SNO.	BASELINE CHARACTERISTICS	OPEN MYOMECTOMY (30)	LAPROSCOPIC MYOMECTOMY (30)	T VALUE	P VALUE
1	Age (year)	37.81 ± 3.13	36.56 ± 3.32	1.5005	0.1389
2	Parity (Number)	2.06 ± 1.62	1.91 ± 1.72	0.3477	0.7293
3	BMI (kg/m²)	28.56 ± 1.28	29.02 ± 1.16	1.4585	0.1501

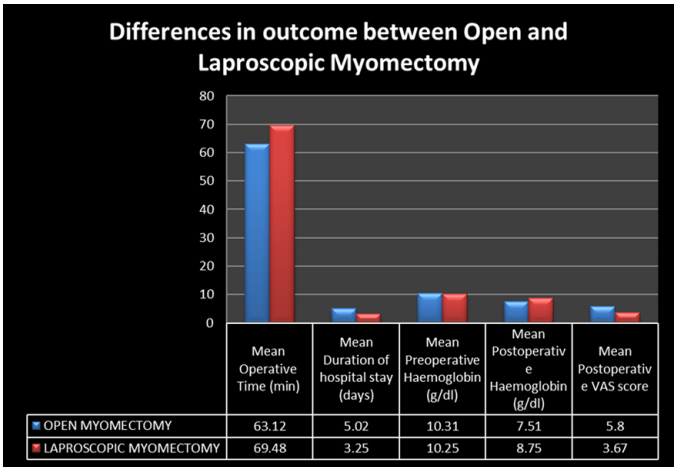

Figure 1:

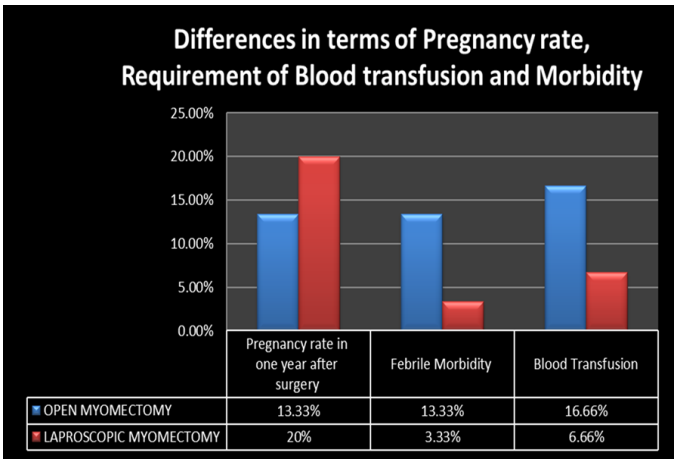

Figure 2:

Discussion

This result is consistent with finding both laparoscopic and open myomectomy are similarly effective in removing leiomyomas regardless of size and number (3). The slightly longer operative time for laparoscopic myomectomy compared to open myomectomy in our study

The shorter hospital stay observed in the laparoscopic myomectomy group (3.25 days) compared to the open myomectomy group (5.02 days) In this study.

The pregnancy rate was slightly higher in the laparoscopic myomectomy group (5 pregnancies) compared to the open group (4 pregnancies), although the difference was not statistically significant.

Limitation

The primary limitation of the study is the substantial variation in the number and size of myomas between groups that underwent myomectomy.

The additional limitations are the single hospital data and retrospective study.

Conclusion

Laparoscopic myomectomy was associated with reduced blood loss, a shorter hospital stay, and lessened distress in specific cases when compared to open myomectomy.

But there was no statistically significant difference in pregnancy rates.

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