



VARIOUS INDICATIONS OF TOTAL LAPAROSCOPIC HYSTERECTOMY (TLH) IN RURAL INDIA

Medical Science

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ABSTRACT

Background: Route of hysterectomy is always a matter of discussion because hysterectomy is a frequently performed operation for the benign conditions of the uterus. The advantages of the laparoscopic approach compared to open surgery include less intraoperative bleeding, shorter hospital stay, faster recovery and lower rates of wound and / or abdominal wall infections, at the expense of a longer surgery

Aim: 1. To study incidence of Total Laparoscopic Hysterectomies out of total laparoscopic surgeries in rural set- up. **2.** To study incidence of Total Laparoscopic Hysterectomies out of total Hysterectomies. **3.** To study various indications of Total Laparoscopic Hysterectomies.

Material and Methods: The present Retrospective observational study was conducted in the Department of Obstetrics and Gynecology, C.C.M Medical College and Hospital, Kachandur, Durg (C.G.) in 247 total women (40 - 65years) underwent Total Laparoscopic Hysterectomies (TLH) between January 2014 to June 2018 (54 months). After inserting camera through primary port, quick evaluation of whole abdominal cavity was undertaken by rotating 30° camera through 360 degrees to rule out any adherence of bowel and decision made for inserting secondary 5mm ports through small incisions under direct vision.

Results: Out of total 4128 major gynaecological surgeries 810 patients underwent gynaec laparoscopic surgeries i.e. **19.62%** & Out of total 810 cases of total Gynaec Laparoscopic Surgeries 247 cases underwent TLH i.e. **30.50%**. Incidence of TLH (247) out of total Hysterectomies (970) were **25.46%**. In our study maximum 84 cases (34.41%) were of AUB-L followed by AUB- A 34 cases (13.76%), AUB- M 28 cases (11.33%), AUB- O 25 cases (10.12%), CIN II/CIN III 16 cases (06.48%), AUB- P 15 cases (06.07%), AUB- N & Complex TO Mass 8 cases (03.24%), PMB 7 cases (02.83%), Chronic PID 6 cases (02.43%), Chronic Pelvic Pain with Chronic Cervicitis 5 cases (02.02%) and minimum 4 cases (01.62%) of both Grade IV Endometriosis & AUB with I Prolapse.

CONCLUSION: TLH can be most suitable & beneficial step specially in rural set up not only feasible but very safe, effective, short hospital stay & not so costly as a operative tool

KEYWORDS

Laparoscopy; Ports; TLH, Hysterectomy

INTRODUCTION

The most common gynecologic surgical procedure performed Across the world is hysterectomy, the most common being benign indications which contribute to more than 70 %¹ such as myomas, dysfunctional uterine bleeding with or without endometrial hyperplasia, adenomyosis, pre-invasive disease like cervical dysplasia or for malignant disease such as endometrial cancer or early stage cervical cancer².

Route of hysterectomy is always a matter of discussion because hysterectomy is a frequently performed operation for the benign conditions of the uterus³. Hysterectomy is the most commonly performed major gynecologic procedure around the world. Benign diseases are responsible for more than 70% of the indications for hysterectomy and include menstrual disorders, fibroids, pelvic pain and uterine prolapse⁴

The advantages of the laparoscopic approach compared to open surgery include less intraoperative bleeding, shorter hospital stay, faster recovery and lower rates of wound and / or abdominal wall infections, at the expense of a longer surgery⁵

By avoiding laparotomy, laparoscopic procedures are associated with less postoperative pain, shorter hospitalization, and with lower infectious morbidity rate than laparotomy incision.^{6,7}

In our study we tried to explore the incidence and various indications of laparoscopic hysterectomies in rural set up of Chhattisgarh state, so that laparoscopic hysterectomies should be promoted all over the India specially in rural areas for betterment of the patients.

AIM & OBJECTIVES

1. To study rates of Total Laparoscopic Hysterectomies out of total laparoscopic surgeries in rural set- up
2. To study rates of Total Laparoscopic Hysterectomies out of total Hysterectomies
3. To study various indications of Total Laparoscopic Hysterectomies

MATERIAL & METHODS

The present retrospective observational study was conducted in the Department of Obstetrics and Gynecology, CCM Medical College and

Hospital, Kachandur, Durg (Chhattisgarh) in 247 total women (40 - 65years) underwent Total Laparoscopic Hysterectomies (TLH) between January 2014 to June 2018 (54 months).

After taking history, women were examined by per abdomen, per speculum & pervaginal examination followed by various blood tests and Ultrasonography test (CT scan sometimes) were done to make diagnosis. Each & every woman was admitted & planned for elective Total Laparoscopic Hysterectomy. Ethical clearance for this study was taken.

Case records of patients were reviewed critically by retrieving information from ward registers, clinical notes and theater records. All data were assessed and analyzed using simple percentages.

All cases were performed under general anaesthesia. Patients were put in modified Trendelenburg position and pneumoperitoneum was created with carbon dioxide (CO₂) insufflator 12-15 mmHg via Veress needle followed by sub, intra & supra umbilical incision for 10mm primary port. After inserting camera through primary port, quick evaluation of whole abdominal cavity was undertaken by rotating 30° camera through 360 degrees to rule out any adherence of bowel and decision made for inserting secondary 3 ports of 5mm through small incisions under direct vision and trans-illumination, lateral to deep inferior epigastric vessels at both flank. Peritoneal cavity was lavaged and intra peritoneal drain was placed only if indicated.

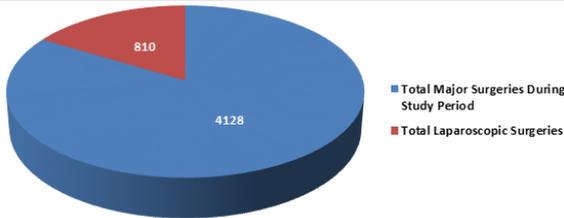
Instruments and laparoscope were removed under direct vision. Patients were discharged after 5days except some special cases. Follow up of all pts were done after 1 week of discharge till needed.

RESULTS

Table 1 Showing Rates of Laparoscopic Surgeries in rural set- up

Total Major Surgeries During Study Period	Total Laparoscopic Surgeries	%age
4128	810	19.62 %

Table 1 shows total 4128 major gynaecological surgeries were performed during study period & out of these 810 patients underwent gynaec laparoscopic surgeries i.e. **19.62%**

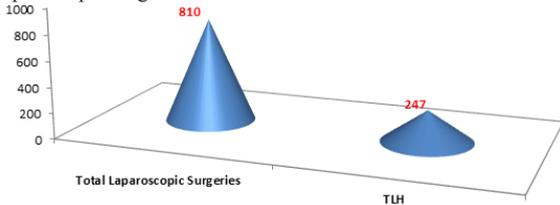


Graph 1 Showing Rates of Laparoscopic Surgeries in rural set-up

Table 2: Shows Rates of TLH out of Total Laparoscopic Surgeries

Total laparoscopic surgeries	Total Laparoscopic Hysterectomies	%Age
810	247	30.50%

Table 2 shows that out of total 810 cases of total Gynaecological Laparoscopic Surgeries 247 cases underwent TLH i.e. 30.50%

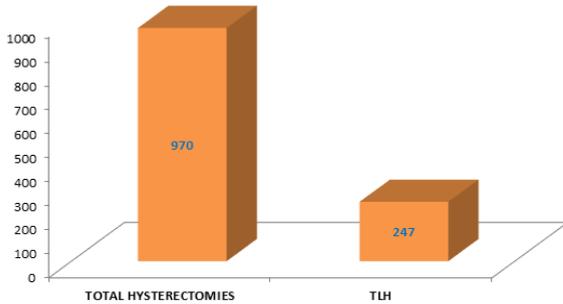


Graph 2 Showing Rates of TLH out of Total Laparoscopic Surgeries

Table 3: Shows Rates of TLH out of Total Hysterectomies

Total Hysterectomies	TLH	%Age
970	247	25.46%

Table 3 shows that out of total 970 cases of total Hysterectomies 247 cases were of TLH so incidence of TLH (247) out of total Hysterectomies (970) were performed during study periods were 25.46%



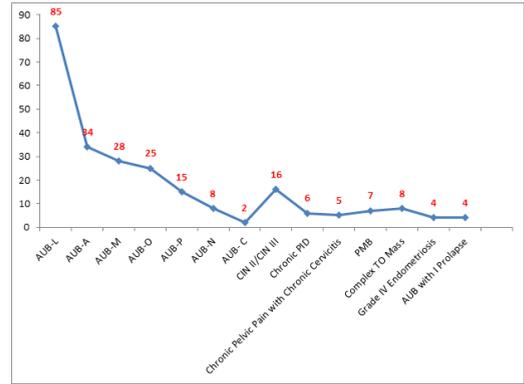
Graph 3 Showing Rates of TLH out of Total Hysterectomies

Table 4: Various Indications for TLH (N=247)

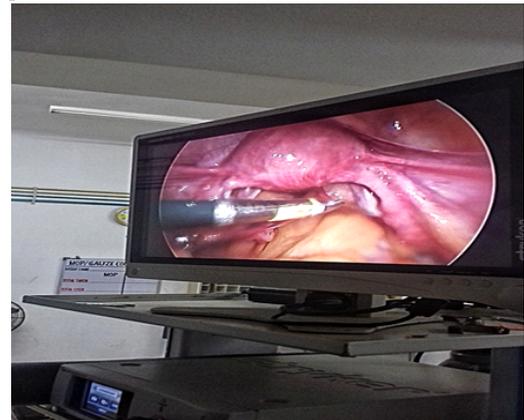
S. No.	Various indications of Laparoscopic Surgeries	Total No. of Cases	%Age
1	AUB-L	85	34.41%
2	AUB-A	34	13.76%
3	AUB-M	28	11.33%
4	AUB-O	25	10.12%
5	AUB-P	15	06.07%
6	AUB-N	8	03.24%
7	AUB- C	2	0.81%
8	CIN II/ CIN III	16	06.48%
9	Chronic PID	6	02.43%
10	Chronic Pelvic Pain with Chronic Cervicitis	5	02.02%
11	PMB (Post Menopausal Bleeding)	7	02.83%
12	Complex TO Mass	8	03.23%
13	Grade IV Endometriosis	4	01.62%
14	AUB with I Prolapse	4	01.62%

Table 3 shows out of total 247 cases of Laparoscopic Hysterectomies maximum 84 cases (34.41%) were of AUB-L followed by AUB- A 34 cases (13.76%), AUB- M 28 cases (11.33%), AUB- O 25 cases (10.12%), CIN II/CIN III 16 cases (06.48%), AUB- P 15 cases (06.07%), AUB- N & Complex TO Mass 8 cases (03.24%), PMB 7 cases (02.83%), Chronic PID 6 cases (02.43%), Chronic Pelvic Pain

with Chronic Cervicitis 5 cases (02.02%) and minimum 4 cases (01.62%) of both Grade IV Endometriosis & AUB with I Prolapse.



Graph 4 Various Indications for TLH (N=247)



Photograph No. 1 shows Uterus & Adnexa during TLH procedure



Photograph No. 2 shows of opening of vault by using Colpotube



Photograph No. 3 of opened vault after removal of specimen

DISCUSSION

Now days changing trend shows the keenness of doctors and supporting staff to learn the advanced techniques for more indications for laparoscopy. TLH should be the first choice among benign diseases per n postmenopausal patients. It is safe with the absence of major perioperative and post-operative morbidity.

RATES OF LAPASCOPIC SURGERIES:-

In our study total 4128 major gynaecological surgeries were performed during study period & out of these 810 patients underwent gynaec laparoscopic surgeries i.e. **19.62%**

	Total Major Surgeries During Study Period	Total Laparoscopic Surgeries	%age
Present Study	4128	810	19.62 %

As such no gynaec laparoscopy studies have obtained the data like our study.

Rates Of Tlh Out Of Total Laparoscopic Surgeries:-

Table 2 shows that out of total 810 cases of total Gynaecological Laparoscopic Surgeries 247 cases underwent TLH i.e. **30.50%**

	Total Laparoscopic Surgeries	TLH	%age
Present Study	810	247	19.62 %

As such no gynaec laparoscopy study has obtained the data like our study.

Table 3: Incidence Of Tlh Out Of Total Hysterectomies

Table 3 shows that out of total 970 cases of total Hysterectomies 247 cases were of TLH so incidence of TLH (247) out of total Hysterectomies (970) were performed during study periods were **25.46%**.

Lyons T (2010)⁸ studied that TLH accounted for 9.9% of all hysterectomies in 1997 and 11.8% in 2003 which were very less than our study because now a days people are well aware of advanced technologies like Laparoscopy and its beneficial aspects.

VARIOUS INDICATIONS FOR TLH :-

In our study out of total 247 cases of Laparoscopic Hysterectomies maximum 84 cases (34.41%) were of AUB-L followed by AUB- A 34 cases (13.76%), AUB- M 28 cases (11.33%), AUB- O 25 cases (10.12%), CIN II/CIN III 16 cases (06.48%), AUB- P 15 cases (06.07%), AUB- N & Complex TO Mass 8 cases (03.24%), PMB 7 cases (02.83%), Chronic PID 6 cases (02.43%), Chronic Pelvic Pain with Chronic Cervicitis 5 cases (02.02%) and minimum 4 cases (01.62%) of both Grade IV Endometriosis & AUB with I Prolapse.

Morton M (2008)⁹ studied that out of 109 cases of TLH 70 cases were of Fibroids/menorrhagia followed by Adenomyosis/dysmenorrhea 19 cases, Endometrial hyperplasia 8 cases, Preinvasive lesion of the cervix 0 case, Dysfunction uterine bleeding 4 cases, Adnexal disease 2 cases & Other were of 6 cases,

Bettaiah R (2016)¹⁰ studies that the main benign surgical indications of TLH were leiomyoma 54.4 %; dysfunctional uterine bleeding refractory to medical management: 17.8 %; adenomyosis: 8.8 %; post-menopausal bleeding: 3.4 %; endometriosis: 3.2 %; endometrial hyperplasia: 2.2 %; and others were chronic pelvic pain, ovarian cyst, and third-degree uterovaginal prolapsed.

Desai VB et al (2017)¹¹ studied that out of the inpatient laparoscopic hysterectomies performed in 2012, 83.2% were for benign indications. The TLH approach accounted for 48.3% of all laparoscopic hysterectomies. Patient race/ethnicity, income, indication for hysterectomy and comorbid conditions, as well as hospital teaching status, urban/rural location, bed size, type of ownership, and geographic region, were significantly associated with the choice of laparoscopic approach.

Our study is comparable with above studies.

CONCLUSION

In our rural set-up minimal access laparoscopic surgeries are not only feasible but very safe, effective, short hospital stay & not so costly as a operative tool specially for most common benign gynaecological problems & Total Laparoscopic Hysterectomy (TLH) can be most suitable, effective & beneficial step specially in rural set up.

RECOMMENDATION

Being a Gynaecologist Surgeon it is our responsibility & duty to pay attention towards each woman of our society, state & nation to make her disease free and TLH is an advanced Technology & it should be recommended due to following reasons:

1. Camera projects the procedure onto a monitor that everyone can see surgery & team members can anticipate what is happening and preparation for the next steps.
2. Less pain than an open procedure
3. Faster recovery
4. Less Bleeding
5. Smaller incisions⁷
6. Smaller external scarring
7. Less internal scarring
8. Less risk of infection
9. Gold standard for some diseases like PIDs, Chronic Pelvic Pain etc.

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