International Journal of Clinical Obstetrics and Gynaecology

ISSN (P): 2522-6614
ISSN (E): 2522-6622

www.gynaecologyjournal.com
2020; 4(5): 279-283
Received: 12-07-2020
Accepted: 16-08-2020

Dr. Ishita Priyam Singh
3rd Year Post Graduate Student, M.K.C.G. Medical College, Berhampur, Odisha, India

Dr. Tripti Markam
2nd Year Post Graduate Student, M.K.C.G. Medical College, Berhampur, Odisha, India

Dr. Abhishek kujur
Senior Resident, PGI Chandigarh, India

Dr. Bharati Misra
Professor and HOD, M.K.C.G Medical College, Berhampur, Odisha, India

Corresponding Author:
Dr. Tripti Markam
2nd Year Post Graduate Student, M.K.C.G. Medical College, Berhampur, Odisha, India

Enhanced recovery in elective gynaecological surgeries

Dr. Ishita Priyam Singh, Dr. Tripti Markam, Dr. Abhishek Kujur and Dr. Bharati Misra

DOI: https://doi.org/10.33545/gynae.2020.v4.i5e.717

Abstract
Background: Enhanced Recovery after Surgery [ERAS] program is an evidenced based model of care for elective surgery that enables patient to recover more quickly and have shorter hospital stay. Fast track surgical program allows early discharge with low risk of readmission and improved outcomes.
Method: This study was prospective non-randomised observational study and was conducted in the department of Obstetrics and Gynaecology, Berhampur, Odisha from October 2015 to September 2017. A total of 100 cases were included in the study. Criteria of inclusion was patients undergoing elective gynaecological surgeries for benign conditions which included TAH by small transverse incision (<6cm), NDVH, LAVH/TLH.
Results: In our study most of the patients presented with heavy menstrual bleeding. The most common clinical diagnosis in patients who underwent hysterectomy was fibroid uterus. In our study the commonest surgical method was abdominal (49%) followed by vaginal (32%) & laparoscopically (19%). There was significant decrease in duration of hospital stay when compared with the duration of hospital stay in conventional abdominal hysterectomy by other studies.
Conclusion: According to this study, no surgical technique has shown to eliminate postoperative morbidity, strong consideration must be given to minimally inavasive surgeries and ERAS pathways which may lead to major reduction in undesirable sequale postoperatively and results in faster convalescence and improved recovery.

Keywords: ERAS, early postoperative mobilization, hystrectomy

Introduction

- Enhanced Recovery after Surgery [ERAS] program is an evidenced based model of care for elective surgery that enables patient to recover more quickly and have shorter hospital stay.
- It was first described by Dr. Kehlet [1]. It is also known as Fast Track Surgery [FTS] program or rapid or accelerated recovery after surgery program and its principles has been accepted by most surgical specialties world wide [2, 3].
- It includes preoperative patient education, reduction of preoperative fasting, omission of bowel preparation, perioperative normovolumia, limited use of nasogastric tubes and drains, early removal of urinary catheters, analgesia to minimise opiate consumption, early postoperative mobilization, prokinetics to enhance gastro intestinal motility and early enteral nutrition.
- Discharge in ERAS program is criteria based. Patients are discharged when they are independently ambulatory, pain is controlled by oral analgesia, are able to drink, void urine, pass flatus and there is no suspicion of a complication.
- Fast track surgical program allows early discharge with low risk of readmission and improved outcomes [4]. So overall combinations allows more patients to be treated within same staff and resources.
- Route of hysterectomy is one of the major determinants of quicker recovery, less perioperative morbidity and shorter hospital stay. NDVH, Laparoscopic hysterectomy and minilaparotomy hysterectomy have offered significant benefits in terms of reduced hospital stay and improved patient recovery over conventional abdominal hysterectomy [5, 6, 7].
- ACOG recommends that the choice of hysterectomy should be based on the surgical indication, the patients anatomic condition, data supporting the chosen approach, informed patient preference and the surgeon's expertise and training.

Aims and Objectives

To study the strategy of enhanced recovery in patients undergoing elective gynaecological surgeries.

Methodology

This study was prospective non-randomised observational study and was conducted in the department of Obstetrics and Gynaecology, Berhampur, Odisha from October 2015 to September 2017.

- A total of 100 cases were included in the study. Criteria of inclusion was patients undergoing elective gynaecological surgeries for benign conditions which included TAH by small transverse incision(<6cm), NDVH, LAVH/TLH.
- All emergency surgeries, malignancy surgeries, patient having untreated comorbid conditions and incisions other than small transverse incisions were excluded from the study.
- A thorough history of the patient was taken. Demographic data including age, occupation, income, education, socioeconomic status of each patient was noted.
- Routine investigation for anaesthesia including baseline haemoglobin and haematocrit, total and differential leucocyte count, fasting blood sugar, renal and hepatic function tests, urine analysis were done for each patient at OPD itself.
- The duration of surgery was recorded from the first incision to the last suture. Blood transfusion was given when required.
- Various parameters like postoperative complications; postoperative time taken for patients to ambulate, post-operative events and duration of hospital stay was recorded.
- Patients were encouraged to ambulate as early as possible and were allowed to go home if they had no complications, were ambulatory, eating well, and has passed flatus and stools Discharge was planned when all criteria were met.
- Patients were called over phone after two weeks of discharge for any complications and were evaluated at OPD after 4 weeks of discharge. At the end of the study data collected were tabulated and analysed.

Results and Discussion

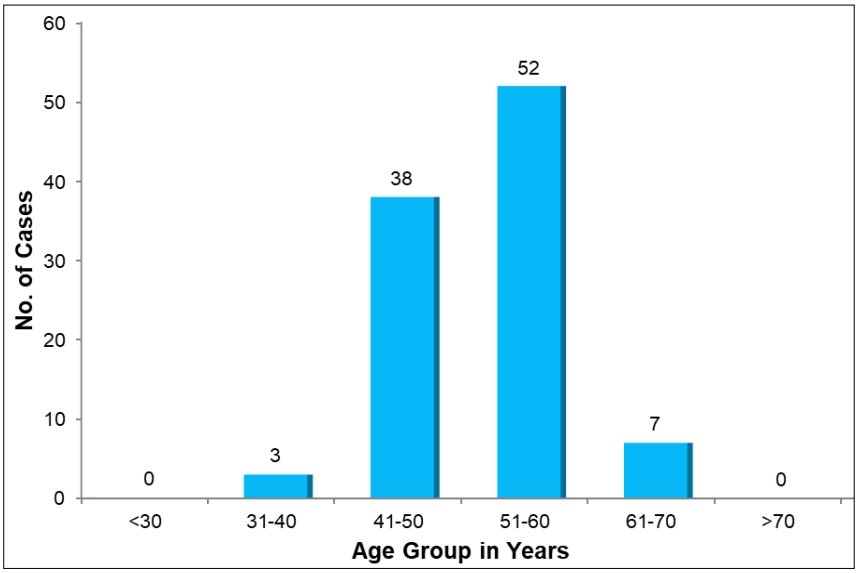

Fig 1: Distribution of Patients According to the age

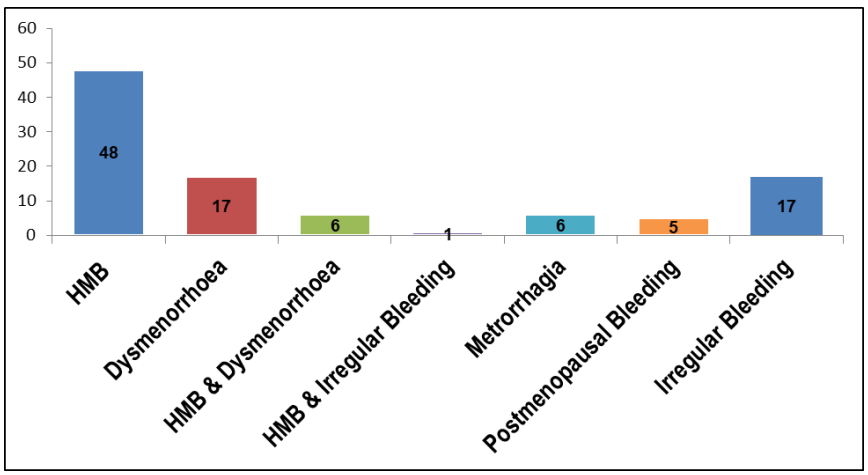

Fig 2: Distribution of cases according to Presenting Symptoms

It was observed that HMB was seen in maximum number of cases (48%) followed by dysmenorrhoea (17%) & irregular bleeding (17%) cases. Rizvi *et al.* [8] also founded that 43.7% cases Clinical presentation was HMB followed by irregular bleeding as compared to our study.

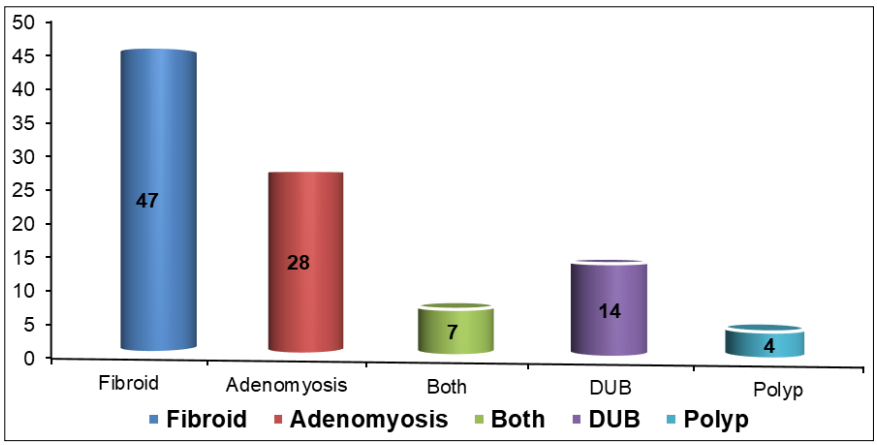

Fig 3: Distribution of cases according to clinical diagnosis

The most common clinical diagnosis in patients who underwent hysterectomy was fibroid uterus followed by adenomyosis.

Table 1: Distribution of Patients According to Size of Uterus

Size of Uterus (in weeks)	TAH	NDVH	LAVH/TLH	Total
<8	0	6	6	12
8	1	15	10	26
10	22	9	3	34
12	26	2	0	28
Total	49	32	19	100

This study included patients with uterine size ≤12weeks size of gravid uterus. Out of 100 patients who underwent hysterectomy, Maximum no of cases had uterus of size 10weeks i.e 34 cases. The difference in uterine sizes with different modes of hysterectomy is again in consensus with the surgeon discretion of choosing the most apt mode of hysterectomy. But uterine size should not be a limiting factor for laparoscopic hysterectomy and NDVH, with increasing experience with the procedure, it is possible to remove larger uteri by laparoscopic surgery and NDVH.

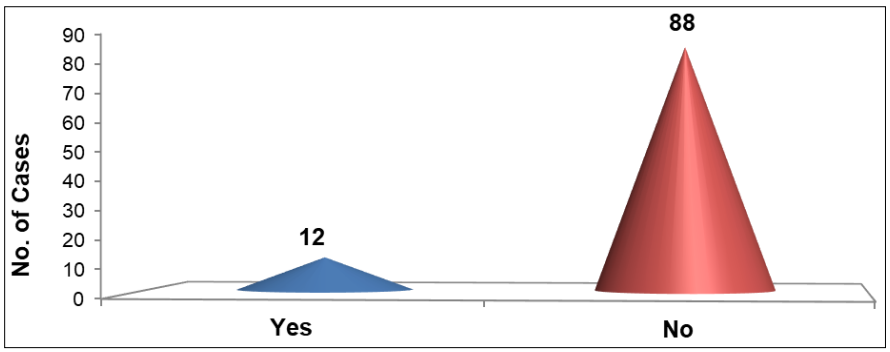

Fig 4: Previous Major Surgeries

Majority of the cases who underwent surgery i.e 88%, had no history of previous major abdominal surgery. All patients with previous major surgery underwent hysterectomy by abdominal route. However this could be due to the selection bias of the surgeon, as, there is tendency in them to choose cases without previous abdominal surgeries to minimise risk of injuries due to adhesions and hence conversion from NDVH/LAVH/TLH to TAH.

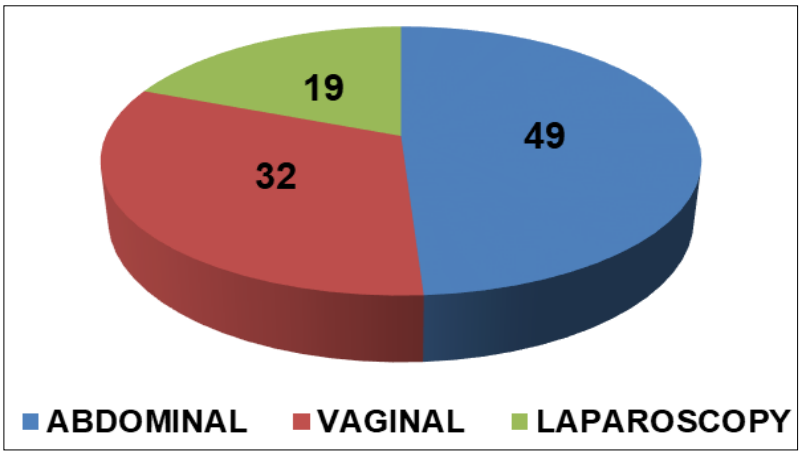

Fig 5: Distribution of cases according to route of operative procedure

In our study the commonest surgical method was abdominal (49%) followed by vaginal (32%) & laparoscopically (19%) as compared to study by Mac Kanzie *et al.* 9 (2004) which showed that abdominal method was preferred in 79% cases and vaginal route in 17% cases.

Table 2: Comparison of Operating Time among Different Modes of Hystrectomy

Time (Minutes)	TAH	NDVH	LAVH/TLH
<100	48	32	0
100-150	1	0	17
150-200	0	0	2
MEAN ± SD	79.04±5.25	72.78± 4.97	142.53±6.23
Total	49	32	19

Though there are many factors influencing the duration of hysterectomy, the two most important ones are mode of hysterectomy and the expertise of the surgeon. It is evident from the study that laparoscopic hysterectomy requires more time than other modes of hysterectomy as manipulations has to be done from a distance and experience is required for better control of instruments.

Table 3: Postoperative Blood Requirement

Postoperatative Requirement of Blood Transfusion	TAH	NDVH	LAVH/TLH	Total
Required	11	1	0	12
Not Required	38	31	19	88
Total	49	32	19	100

Postoperative blood transfusion was significantly higher in abdominal hysterectomy group compared to NDVH and LH group, blood loss was more in TAH group with 11 patients requiring blood transfusion

Table 4: Distribution of Cases According to Complications of Hysterectomy

Complication	No. of Cases
Wound sepsis	2
Abdominal distension	1
Pyrexia	5
Respiratory infection	1
UTI	3
Urinary retention	1
Malaria	1
Total	14

Out of 100 cases who underwent hysterectomy in our study, 14 cases developed complications (14%). There were no major complications reported in the study. The most common minor complication encountered in our study was post operative febrile morbidity followed by UTI

Table 5: Postoperative Ambulation

Postoperative Ambulation (Hours)	TAH	NDVH	LAVH/TLH	Total
After 24 hours	32	32	19	83
After 48 hours	17	0	0	17
Total	49	32	19	100

Table 6: Day of Starting Oral Diet

Day of Starting Oral Diet	TAH	NDVH	LAVH/TLH	Total
Within 12 Hours	30	32	18	80
12-24hours	18	0	1	19
After 24 Hours	1	0	0	1
Total	49	32	19	100

It is evident from the above data that start of oral diet as well as ambulation were found earlier in NDVH and laparoscopic cases compare to TAH cases.

Table 7: Duration of Hospital Stay

Group	Mean Duration of Hospita l Stay (Days)	Standard Deviation
TAH	4.O2	1.18
NDVH	3.27	0.58
LAVH/TLH	3.47	0.51

- There was significant decrease in duration of hospital stay when compared with the duration of hospital stay in conventional abdominal hysterectomy by other studies. According to a study by Jai Bhagwan *et al*. the mean duration of stay in conventional abdominal hysterectomy group was 8-30days.
- Similar to Sheetal Mehata *et al*. [10] Jai Bhagwan *et al*. institution of enhanced recovery pathway in gynaecologic surgery resulted in remarkable postoperative outcomes including early mobilisation, earlier return of gastrointestinal functions, excellent pain management, shorter hospital stay which eventually led to cost reduction, shorter hospital stay and faster convalescence.
- As worldwide trends are rising towards minimally invasive approach, strong consideration must be emphasised upon mode of surgery.
- As Michel Cossen said "Vaginal hysterectomy should be performed wherever possible, Laparoscopic hysterectomy

Conclusion

- In modern era, where time is the most valuable thing, quicker return to normal routine and work is the need. The

indicated for adnexal pathology known or anticipated pelvic adhesions and for narrow vaginal access with moderately enlarged uterus. Abdominal hysterectomy is to be chosen when both laparoscopic and vaginal surgery is impossible"

- While no surgical technique has shown to eliminate postoperative morbidity, strong consideration must be given to minimally inavasive surgeries and ERAS pathways which may lead to major reduction in undesirable sequale postoperatively and results in faster convalescence and improved recovery.

References

1. Kehlet H. Fast-track colorectal surgery. The Lancet 2008;371(9615):791-793
2. Kehlet H, Wilmore DW. Multimodal strategies to improve surgical outcome. American Journal of Surgery 2002;183(6):630-641.
3. Kehlet H. Principles of fast track surgery: multimodal perioperative therapy programme. Chirurg 2009;80(8):687-689
4. Moller C, Kehlet H, Friland SG, Schouenborg LO, Lund C, Ottesen B. Fast track hysterectomy. Eur J Obstet Gynecol Reprod Biol 2001;98:18-22.
5. Panici BP, Zullo MA, Angoli R, Muzzi L. Minilaparotomy hysterectomy: a valid option for the treatment of benign uterine pathologies. Eur J Obstet Gynecol Biol 2005;119(2):228-31.
6. 6.Fanfani F, Fagitti A, Longo R, Marana E, Mancuso S, Scambia G. Minilaparotomy in the management of benign gynaecologic disease. Eur J Obstet Gynecol Biol 2005;119(2):232-6.
7. Muzii L, Basile S, Zupi E, Marconi D, Zullo MA, Manci N *et al*. Laparoscopic assisted vaginal hysterectomy versus minilaparotomy hysterectomy: a prospective randomized studyJ Minim Invasive Gynecol 2007;14(5):610-5.
8. Rizvi G, Pandey H, Pant H, Chufal SS, Pant P. Histological correlation of adenomysis and leiomyoma in hysterectomy specimens as the cause of abnormal uterine bleedingin women in different age groups in the Kumaon region: a retrospective study.J Midlife Health 2013;4:27-30.
9. MacKenzie IZ, Naish C, Rees M, Manek S. 1170 consecutive hysterectomies: indications and pathology. J Br Menopause Soc 2004;10(3):108-12
10. Mehata ST, Trivedi YN, Bhalodia P. Role of nondecent vaginal hysterectomy in advancing gynaecological practice. NHL Journal of medical science 2014:3(1).