

SHORT TERM OUTCOME OF VAGINAL HYSTERECTOMY- WARD MAYO PROCEDURELakshmy S¹, Atmaja Nair², Sreedevi S³¹Additional Professor, Department of Obstetrics and Gynaecology, Government Medical College, Kozhikode, Kerala.²Associate Professor, Department of Obstetrics and Gynaecology, Government Medical College, Kozhikode, Kerala.³Senior Resident, Department of Obstetrics and Gynaecology, Government Medical College, Kozhikode, Kerala.**ABSTRACT****BACKGROUND**

Vaginal hysterectomy is often performed to correct uterovaginal prolapse. The effect of surgery is seldom addressed. Long term results and QOL data are sparse.

The objectives of the study were to determine the short-term complications and to assess the post-operative wellbeing of the patients following Ward Mayo surgery at Department of Obstetrics and Gynaecology, Calicut Medical College.

To determine the incidence of vault-prolapse one year after surgery.

MATERIALS AND METHODS

Hospital based prospective cohort study. All post-menopausal patients in the age group 50-70 years with third degree uterovaginal prolapse POP Q stage III and IV, who underwent Ward Mayo procedure from IMCH Calicut are followed up for a period of 1 year. Patients were reviewed 6 weeks after surgery and at the end of 1 year.

RESULTS

Regarding short term complications, 12% had anaemia requiring blood transfusion, 3% had urinary bladder injury, 8% had post-operative fever, 3% had vaginal infection. Presence of COPD and a BMI of more than 25 are significant risk factors for the short-term complications. In long term, 26% developed de-novo urinary symptoms. 90% patients had satisfactory relief from pre-surgery symptoms. Emotional stress of hysterectomy was experienced by 7%. Incidence of vault prolapse was nil. The proportion of Ward Mayo surgeries at IMCH in 2016 is 11.4%.

CONCLUSION

Vaginal hysterectomy is an efficient treatment for uterovaginal prolapse. However, 15% of the operated patients developed de novo urinary stress incontinence. Therefore, efforts to identify latent stress incontinence should be undertaken preoperatively and it should be properly corrected during the surgery.

KEYWORDS

Uterovaginal Prolapse, Hysterectomy, Vault Prolapse, Cystocele, Rectocele, Enterocoele.

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BACKGROUND

Among the reproductive health problem faced by women, the most common problems are cystocele 56%, uterine prolapse 53.6% and rectocele 40%.¹ Uterine prolapse is a reproductive health condition in which uterus protrudes or slips out from its normal position on the pelvic floor. The global prevalence of uterine prolapse is 2-20%.²

Management is guided by the severity of symptoms and the degree of prolapse. Women with mild degree of organ prolapse are treated with pelvic floor exercises and/or physical therapy with behavioural modification. Women with moderate prolapse who are not ideal surgical candidates may benefit from the use of pessaries. Surgery is the preferred treatment of choice for severe prolapse.

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Vaginal hysterectomy is one of several surgical procedures for the correction of symptomatic prolapse.³ Very little number of published studies have investigated the process of normal recovery after vaginal hysterectomy. The specific aims of this study were to investigate operative and postoperative complications, perceived health, sexual activity, urinary symptoms, and patient satisfaction and to determine the incidence of vault prolapse following Ward mayo procedure.⁴

Aims and Objectives

- To determine the short-term complications and the post-operative wellbeing of the patients following Ward Mayo surgery at Department of Obstetrics and Gynaecology, Calicut medical college.
- To determine the incidence of vault prolapse one year after surgery.

MATERIALS AND METHODS

Study Design- A prospective hospital-based cohort study. Patients who have undergone Ward mayo surgery at IMCH, Kozhikode during the period of January 1, 2016 to October 31, 2016 are followed up for a period of 1 year i.e. till October 31, 2017.

Study Subjects- Postmenopausal women of age group 50 to 70 years with POP Q stage III and IV were chosen for study.

Study Setting- Department of Obstetrics and Gynaecology, IMCH Calicut.

Study Period- January 1, 2016 to October 31, 2017.

Sample Size- According to RCOG Green Top Guidelines 46, 2007, If the recurrence of prolapse is taken as 11.6%, then with a precision=10.

Sample size= 4 pq/d2.

Therefore, sample size=88. Approx. 100.

Inclusion Criteria

All post menopausal patients in the age group 50 to 70 years with POP Q stage III and IV uterovaginal prolapse who have undergone Ward Mayo surgery.

Exclusion Criteria

Patients below 50 years and above 70 years.

Patients who have not attained menopause.

Data Collection Tools

- Direct interview to assess the pre-surgery status and present status of the patient with a pre-set questionnaire prepared based on Pelvic Floor Impact Questionnaire (PFIQ).
- A clinical gynaecological examination.

Treatment Protocol and Follow Up

Patients with POP Q stage III and IV uterovaginal prolapse were admitted. After a thorough pre-anaesthetics work up and examination, patients were taken up for vaginal hysterectomy with pelvic floor repair. As an institution protocol we administer intravenous antibiotics for all elective surgeries, the first dose given half an hour prior to beginning of the surgery. Intravenous antibiotics were given till three days post-operatively. Then converted to oral. Post operatively, patients are usually discharged on day 6 or 7.

Budget of the Study

No extra expense is incurred by the patient.

Data Analysis

Data entered into excel sheet and analysed using SPSS software. The qualitative data is expressed in proportions. The significance of the result will be assessed using appropriate tests of significance.

Statistics

Statistical analysis was performed using chi-square test and fisher’s extract test. Statistical significance was assumed at a p value of <0.05.

Ethical Concerns

Information obtained will be used for the purpose of the study only and strict confidentiality will be maintained throughout.

RESULTS

During the study period from January 1, 2016 October 31, 2016, 100 patients who underwent Ward Mayo procedure and satisfying the inclusion criteria were followed up.

1) Presenting Complaints

Presenting Complaints	Percentage
Mass coming down per vaginum	100
Low backache	78
Discharge per vaginum	65
Urinary symptoms	62
Coital difficulty	32
Defecation symptoms	15
Table 1. Presenting Complaints	

2) Age Distribution

Age	%
51-60 Y	32
61-70 Y	68
Table 2. Age Distribution	

3) Obstetric Data

Type of Delivery	Percentage
Vaginal deliveries	88
Caesarean section	12
Table 3. Obstetric Data	

Present study supports the fact that caesarean section is not protective against prolapse.

- No. of patients with vaginal deliveries- 88
- No. of patients with hospital deliveries-62
- No. of patients with home deliveries-26
- No. of instrumental deliveries- 16
- 56% of the patients were grand multiparas.

4) BMI

BMI	%
<18.5	6
18.5- 24.9	51
25- 29.9	28
30.0- 34.9	12
35- 39.9	3
Table 4. BMI	

- Most patients were of normal BMI-52%
- Overweight- 22%

5) Short Term Complications

- Anaemia requiring blood transfusion-12%
- Urinary bladder injury- 3%
- Post operative fever- 8%
- Vaginal infection- 3%

Three patients were re-admitted with vaginal vault infection. Pus culture in one case was positive for E coli and two were mixed bacterial infection. All patients recovered well with intravenous antibiotics.

Association between risk factors and short-term complications.

Risk Factor	Complication Present n (%)	Complication Absent n (%)	P Value
Age	9 (33.3)	18 (66.7)	0.658
COPD	9 (56.3)	7 (43.8)	0.012
No. of Deliveries	22(28.6)	55 (71.4)	0.568
Type of Deliveries	26 (29.5)	62 (70.5)	0.788
Place of Delivery	20 (27.4)	53 (72.6)	0.350
BMI	14 (43.8)	18 (56.3)	0.040

Table 5. Risk Factors and Short Term Complications

P Value <0.05

Presence of COPD and a BMI of > 25 are seen to be risk factors for development of short-term complications.

6) Complications at One Year Follow-Up

At, the end of one year, complications were observed in 10 patients. (26%)

They presented with de novo urinary symptoms.

- Main complaint was stress urinary incontinence - 6 patients (15%).
- Remaining 4 patients complained of urinary retention (10%).

7) Patient Wellbeing

(at the end of one year after surgery)

- Average return to normal activity was less than 15 days.
- 88% patients returned to their normal household activities.
- Urinary complaints reduced for 43 patients ie, 70%.
- Sexual activity improved in 6 patients ie, 20%.
- 81% of the patients could have better socialization one year following the surgery.
- 86% of the patients could travel without hesitation and without any loss of confidence.
- Emotion stress of hysterectomy experienced by7% of the patients.

8) Satisfactory Relief from Pre-Surgery Symptoms Experienced by 90%.

9) Incidence of Vault Prolapse- Nil

DISCUSSION

The proportion of Ward Mayo surgeries at IMCH in 2016 is 11.4

The most common presenting complaint was mass coming down per vaginum and 65% of patients had

complaints of discharge per vaginum which also either directly or indirectly implicate the long-standing disease. 32% of patients complained of dyspareunia.

Lara et al in 2004 concluded that there were few strong associations between the specific symptoms assessed and the severity of prolapse.⁵ All these observations are relevant and comparable to the present study.

Age

The study population was in the age group 50 to 70 years. Minimum age of 51 years and maximum age 70 years and mean age 63.58 years.

Eleje et al states that the mean age of their patients was 55.5

Obstetric Data

- No. of patients with vaginal deliveries- 88
- No. of patients with caesarean section-12
- No. of patients with hospital deliveries- 62
- No. of patients with instrumental deliveries- 12

All the patients were multiparas with minimum two deliveries. 56% patients were grand multiparas.

Eleje et al states that parity is a well-established risk. This also compares favourably with various studies.^{6,7,8,9,10,11} Pregnancy itself, without vaginal birth has been cited as a risk factor.¹² In addition, partial pudendal and perineal neuropathies are also associated with labour and can predispose to pelvic organ prolapse.¹³

Caesarean section cannot be considered protective against prolapse as seen in the present study where 12% of the study population had undergone caesarean section.

BMI

Maximum number of patients in present study belong to normal BMI category- 52%. 22% belong to overweight category.

WHI study by Nygaard et al in 2004 found the mean BMI of the study population to be 30.4 - 6.2 kg/m².

Short Term Complications

Anaemia

12% of the operated population required transfusion (Hb 9-10 mg/dl). On analysis, it could be concluded that 7 of the cases had documented excess bleeding 3% were cases of mild anaemia preoperatively with haemoglobin values between 10 and 11 g/dl. In 2% cases no cause could be identified.

Bladder Injury

3% patients suffered bladder injury. All were cases of previous caesarean sections. Mojgan et al in 2009 states the immediate post-surgery complications to be retroperitoneal or intra-abdominal bleeding and bleeding from suture, managed by repeat surgery.

In our study, Post-operative fever observed in 8%, Vaginal infection in 3%, Urinary tract infections in 7% of patients. This was comparable to Mojgan et al.

Stress Urinary Incontinence

At the end of one year, de novo urinary symptoms appeared in 10 patients (26%) of whom 6 patients (15%) had stress

urinary incontinence. Systematic review of RCTs by J Marinus¹⁴ et al favoured combination surgery. CARE and OPUS trials conclude that the risk of postoperative incontinence was almost halved by a prophylactic incontinence procedure.

Occult stress urinary incontinence must be identified prior to surgery. If not, patients are likely to develop de novo stress urinary incontinence which can be distressing. Mc Call's culdoplasty was done in 34% of the cases under my study.

Sexual Activity

Sexual activity improved in 20% patients in my study. A study on sexual functioning and hysterectomy by Julia et al also concludes that there is significant improvement in sexual activity following hysterectomy in patients reviewed after 24 months (from 70.5% to 76.7%).

Acceptance

Satisfactory relief from pre-surgery symptoms was seen in 90% patients. Mojgan et al also states that patients were satisfied with the postoperative result in 93% of cases.

Vault Prolapse

Incidence of vault prolapse at the end of one year in this study is nil.

A retrospective follow-up of 448 women undergoing hysterectomy, using the definition described by Baden et al showed the condition to follow 11.6% of hysterectomies performed for prolapse and 1.8% of those performed for other indications.

CONCLUSION

Vaginal hysterectomy is an efficient treatment for uterovaginal prolapse.

- There is swift recovery and a low rate of complications.
- There was overall improvement in the patient's well being.

Efforts to identify latent stress incontinence should be undertaken preoperatively and proper measures must be taken for its correction during the surgery.

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