

# Review of vaginal hysterectomy

N. Bhavani\*, Sangeeta Chippa\*\*, V S Prasannakumar Reddy\*\*, Rajani\*\*

\*Associate Professor, \*\*Assistant Professor, Department of Obstetrics and Gynaecology, M. N. R. Medical College and Hospital, Sangareddy, Medak, Andhra Pradesh, INDIA.

Email: [c\\_sangeeta12@rediffmail.com](mailto:c_sangeeta12@rediffmail.com), [sangeethadoc81@gmail.com](mailto:sangeethadoc81@gmail.com)

## Abstract

**Objective:** The purpose of our study is to determine epidemiological factors for women with prolapse who underwent vaginal hysterectomy and to study the various complications of vaginal hysterectomy. **Methods:** This is a prospective, observational study performed at MNR medical college from January 2012 to December 2013. We included all patients who came to outpatient department with III degree pelvic organ prolapse. Women who underwent vaginal hysterectomy for causes other than POP were excluded. Results: 63.3% women were more than 50 years of age. Majority (71.6%) women were grandmultipara. Anaemia and hypertension were the common associated risk factors. Complications of vaginal hysterectomy in our study were, febrile morbidity (19.7%), vault hematoma (14.4%), vault infection in 5 cases, pelvic abscess in 2 women and accidental rectal injury was seen in one women. **Conclusion:** Although vaginal hysterectomy is a safe procedure, we may come across minor and at times major complications. So it is important to select patients carefully with proper and thorough pre operative assessment

## \*\*Address for Correspondence

Dr. Sangeeta Chippa, Assistant Professor, Department of Obstetrics and Gynaecology, M. N. R. Medical College and Hospital, Sangareddy, Medak, Andhra Pradesh, INDIA.

Email: [c\\_sangeeta12@rediffmail.com](mailto:c_sangeeta12@rediffmail.com), [sangeethadoc81@gmail.com](mailto:sangeethadoc81@gmail.com)

Received Date: 20/06/2014 Accepted Date: 28/06/2014

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Quick Response Code:	Website: <a href="http://www.statperson.com">www.statperson.com</a>
	DOI: 29 June 2014

## INTRODUCTION

Pelvic organ prolapse is a common gynaecological condition seen by gynaecologist. It is defined as descent of one or more of pelvic organs. Prolapse generally occurs due to damage to the supporting structures of the uterus or vagina. Weakening of the supports can occur during child birth, and also as a result of chronic heavy weight lifting or straining especially with constipation, chronic cough and as a part of ageing process. In some cases there may be genetic weakness of supportive tissues. Uterine prolapse can occur in women of any age, but it often affects postmenopausal women who have had unsupervised home deliveries. It affects up to 40 % of parous women over 50 years of age with significant effects on quality of life<sup>1</sup>. Although different operative

procedures including conservative surgeries have been described, vaginal hysterectomy is the most commonly performed surgery for pelvic organ prolapse. It is a definitive treatment modality for women who are not desirous of fertility and not willing to undergo conservative management. Vaginal hysterectomy is not only performed for women with prolapse uterus but also performed for other pathological conditions, then it is called as Non descent vaginal hysterectomy (NDVH). Vaginal hysterectomy is a safe and effective procedure and is associated with less incidence of intra operative and postoperative complications, less need for blood transfusions<sup>2</sup>, less operative time, least involvement of peritoneal cavity, early oral diet permissibility, early ambulation, quick convalescence with less febrile morbidity and shorter hospitalization<sup>3</sup> when compared to abdominal hysterectomy. Although vaginal hysterectomy is safe, recognized complications include intraoperative haemorrhage, secondary haemorrhage, bladder injury, ureteric injury, bowel injury, paralytic ileus and death as a result of the procedure or anaesthesia<sup>4</sup> the purpose of our study is to determine epidemiological factors for women with prolapse who underwent vaginal hysterectomy and to study the various complications of vaginal hysterectomy.

### MATERIAL AND METHODS

This is a prospective observational study performed at MNR medical college over a period of 2 years from January 2012 to December 2013. We included all patients who came to outpatient department with III degree pelvic organ prolapse. Thorough history and detailed clinical examination was done. In all women necessary pre operative investigations were carried out and after preanaesthetic check up vaginal hysterectomy was performed. Patients were observed till 10th postoperative day for any complications and then they were followed for 2 weeks for any delayed complications.

### EXCLUSION CRITERIA

Women who underwent vaginal hysterectomy for causes other than POP were excluded. Women with 1<sup>st</sup> and 2<sup>nd</sup> degree uterine prolapse were also excluded from the study because; conservative surgeries were performed in these patients.

### RESULTS

In our study we included 76 women with 3<sup>rd</sup> degree pelvic organ prolapse who underwent vaginal hysterectomy. Women who underwent vaginal hysterectomy for other indications were excluded from the study.

**Table 1: Age distribution**

Age	Number of patients	Percentage
<30 years	0	0
31-40 years	13	17.1%
41-50 years	15	19.7%
51-60 years	22	28.9%
61-70 years	17	22.3%
>70 years	09	11.8%

When age wise distribution was studied, around 36.8 % women were < 50 years and 63.2 % were > 50 years and majority of women were postmenopausal.

**Table 2: Parity wise distribution**

Parity	No of patients	Percentage
Nulliparous	6	7.8%
P1 – P4	11	14.4%
>P4	59	77.6%

Most of the women (77.6 %) studied were grand multipara. Most of the women had home deliveries by local dais. Only 6 women had nulliparous prolapse. Majority of the women included in the study were from poor socioeconomic status and 60% women were illiterate. 26.3 % had anaemia, correction was done preoperatively by blood transfusions and injectable iron depending upon the hemoglobin levels of the women. 15 out of 76 women were having hypertension either diagnosed before the admission or during the hospital

stay. 4 women were known diabetic and on treatment and 2 had cardiac problem before admission.

**Table 3: Type of surgery**

Type of surgery	No of patients	Percentage
Simple vaginal hysterectomy	12	15.78%
Vaginal hysterectomy with anterior repair	05	6.5%
Vaginal hysterectomy with posterior repair	11	14.4%
Vaginal hysterectomy with both anterior and posterior repair	48	63.15%

In majority of women, we performed vaginal hysterectomy with pelvic floor repair and only in 12 women we performed simple hysterectomy.

**Table 4: Complications**

Complications	No of patients	Percentage
Febrile morbidity	15	19.7%
Vault haematoma	11	14.4%
Vault sepsis	05	6.5%
Secondary haemorrhage	03	3.9%
Pelvis abscess	02	2.6%
Rectal injuries	01	1.3%
Death	02	2.6%

In our study we observed febrile morbidity (19.7%) as the most common complication followed by vault haematoma which was seen in 14.4% of cases. 5 out of 76 women had vault infection which was observed on per speculum examination on D8 of surgery. Pelvic abscess was seen in 2 patients. In one case while doing perineorrhaphy, there was rectal injury which was repaired immediately. Secondary haemorrhage occurred in 3 cases on 7<sup>th</sup>-10<sup>th</sup> post op day. One patient was managed conservatively and in 2 cases exploratory laparotomy was performed. In our study we did not come across bladder injury or ureteric injury.

### DISCUSSION

Vaginal hysterectomy with or without repair of pelvic floor is commonest major gynaecological operation performed in our institute. Vaginal hysterectomy dates back to ancient times. The procedure was performed by Soranus of Ephesus in 120 AD<sup>5</sup>. The lifetime risk for women to undergo surgery for the management of POP is 11% and 30 % of these women will need additional surgery because of recurrence of prolapse<sup>6</sup>. Risk of POP increases with the number of vaginal births and is higher in older women. In our study, 63 % women with POP were more than 50 yrs, 11.8% were more than 70 yrs old. In the study Saima *et al*, 90% cases were between 31-60years<sup>7</sup>. While in the study by Iklaki *et al*, 73.4 %

women were between the ages of 50-70 years<sup>4</sup>. Majority of women in this study were grandmultipara and only 6 were nulliparous women. Similar results were seen in study by Iklaki et al<sup>4</sup> and in the study of Bhattacharya et al<sup>8</sup> also. Similar results were seen in study by Saima et al.<sup>7</sup> In our study, in only 15.78 % of women simple vaginal hysterectomy was performed. In 84.22 % cases vaginal hysterectomy with pelvic floor repair was performed febrile illness was the commonest complication observed in our study. It was seen in 19.7 % patients. Nabila Iram et al also reported febrile morbidity as one of the commonest complication<sup>9</sup>. In our study, in 14.4 % women vault hematoma was found which was treated conservatively. Deshpande et al reported the incidence of vault haematomas 11 %<sup>3</sup> while Saha et al reported the incidence of vault hematoma as 25 %<sup>10</sup>. The vault sepsis was seen in 6.5 % of cases in our study, while in the study by Bhattacharya et al, incidence of vault sepsis was 2.5%<sup>8</sup>. Incidence of secondary haemorrhage in our study was 3.9. Out of 3 cases of secondary haemorrhage, one case was managed conservatively with higher antibiotics and blood transfusion. In two cases exploratory laparotomy was performed. In the study by Bhattacharya et al secondary haemorrhage was seen in 5 cases out of 1105 patients<sup>8</sup>. In the study by Saima et al secondary haemorrhage was reported in 0.63% cases<sup>7</sup>. In our study 2 out of 76 patients, pelvic abscess was seen. Both the cases were managed conservatively. Similarly Bhattacharya et al reported 4 patients with pelvic abscess with peritonitis<sup>8</sup>. Du Toit et al also reported 4 out of 367 cases with pelvic peritonitis<sup>11</sup>. Accidental rectal injury was seen in one of our patients which were repaired immediately. In the study by Saha et al, incidence of bowel injury was 0.3 %<sup>10</sup>. While in the study by Saima et al, rectal injury was reported in 1 case<sup>7</sup>. Bhattacharya also reported one case of rectal injury in their study<sup>8</sup>. 2 cases out of 76 died in our study. One case died because of myocardial infarction and another case died of primary hemorrhage. Bhattacharya et al also reported 4 cases of myocardial infarction<sup>8</sup>. Lewis et al has reported a mortality rate of 0.03 %<sup>12</sup>.

## CONCLUSION

Although vaginal hysterectomy is a safe procedure, we may come across minor and at times major complications. So it is important to select patients carefully with proper

and thorough pre operative assessment. Expert surgical techniques and vigilant care in post operative period are equally important for prevention and management of complications thereby reducing morbidity and mortality

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Source of Support: None Declared  
Conflict of Interest: None Declared