Original Article

Five Years Audit On Vaginal Hysterectomy for Utero Vaginal Prolapse

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Abstract

Introduction: Hysterectomy is one of the most common surgeries performed in gynecology. It can be performed by vaginal and abdominal route. Only 10.0% of hysterectomies aredone by vaginal route. Vaginal hysterectomy is associated with less febrile morbidity, less bleeding necessitating transfusion, shorter hospitalization and faster convalescence than abdominal hysterectomy.This is a study onoutcomes of vaginal hysterectomy for uterovaginal prolapse at Patan Hospital over five years.

Methods: This was a retrospective descriptive study on vaginal hysterectomies for uterovaginal prolapsed done in the Department of Obstetrics and Gynecology of Patan Academy of Health Sciences over a period of 5 years (January 2010 to December 2014). After ethical clearance from Institutional review committee details of 50 vaginal hysterectomy performed during this period was obtained from medical record section of the hospital.Datawere recorded in Microsoft excel 2010, frequency distributionand mean of relevant data was then calculated.

Results: This study included 50 cases of vaginal hysterectomy, the mean age of patient was 57.4 ±9.3 (range 40-74) years. All except one case was multiparous. 80% had home delivery and 20 % had hospital delivery. The mean duration of prolapse was9.41 ±2.68yrs (range 0.5 -44 yrs). 26 (52 %) cases had third degree uterovaginal Prolapse. Therewas no intraoperative complications but postoperative complication was seen in 9 cases. In all cases, histopathology findings were suggestive of chroniccervicitis.

Conclusions: Vaginal hysterectomy for utero vaginal prolapse isa safesurgery with less postoperative morbidity.

Keywords: Uterovaginal prolapse (UVP), VaginalHysterectomy (VH)

Introduction

Hysterectomy by abdominal or vaginal route is the most commonly performed gynecological surgery. A large scale survey of hysterectomy shows that up to 80% of hysterectomies are performed by the abdominal route and only 10% of hysterectomy are done by vaginal route.[1,2]In Nepal, more than 1 million women suffer from Uterovaginal prolapse (UVP) mostlyof reproductive age .[3]Studies in different districts of Nepal suggest that prevalence of UVP is 17%-27%.[4]UVP is the commonest indication for vaginal hysterectomy (VH). Vaginal hysterectomy is associated with less febrile morbidity, less bleeding necessitating transfusion, shorter hospitalization and faster convalescence compared to abdominal hysterectomy.[3]This is a study done to analyze the outcomes of VH done for UVP in PatanHospital over 5 years (January 2010 to December 2014).

Methods

This was a retrospective descriptive study on VH for UVP done in the Department of Obstetrics and Gynecology of Patan Academy of Health Sciences over a period of 5years (January 2010 to December

2014).After ethical clearance from Institutional review committee of Patan Academy of Health Science, case files of 50 VH done during this period was collected from medical record section of the Hospital. Details of cases- demographic profile, parity, previous delivery, grade of prolapse, comorbidity, surgical details, need of blood transfusion, postoperative complication till first weekand histopatholgical reports was recorded in Proforma. Data thus obtained was entered in Microsoft excel 2010. Frequency distributions, mean and median of the data was then calculated using Microsoft excel 2010.

Results

Over the study period of 5 years from January 2010 to December 2014, 50 VH for UVP was done in Patan Hospital. The mean age of patient was 57.4 ±9.3 (range 40-74) yrs. Out of these 50 cases, 49cases were multiparous and 1 case was nulliparous, mean parity was 4.9±1.9, median 5 (range 0-9)(Table 1). Among them, 80% had home delivery and 20 % had hospital delivery. The mean duration of UVP was 9.41±2.68yrs (range 0.5 -44 yrs).

Of the 50 cases, 26 (52 %) cases underwent VH for third degree UVP, 17(34%) cases for second degree UVP, 5 (10%) cases for procidentia and 2(4%) cases for first degree UVP (Fig 1). Among them 22 cases had cystocele, 22 cases had rectocele and 2 cases had decubitus ulcer. Out of 50 cases, 22 cases had associated comorbid condition -hypertension alone in 15 cases, hypertension and diabetes in 5 cases, chronic obstructive pulmonary disease (COPD) in 1 case and hypothyroidism in 1 case.

The mean duration of foleys catheterization was 3.12±0.39 days (mean 3-5 days). The mean duration of hospital stay was 7.02±3.63 days (range3-20 days).

The overall post-operative complication rate was 18 %(9/50). Out of the 50 cases, vault bleeding was seen in 4 cases, vault infection in 4 cases, vault prolapse in 1 case (Fig 2). All cases recovered well postoperatively and there was no mortality. In all the 50 cases, the histopathology findings were suggestive of chronic cervicitis with no evidence of malignancy.

Table 1: Parity of the patients

Parity	Frequency	Percent
Nullipara	1	2.0
Parity 2	4	8.0
Parity 3	11	22.0
Parity 4	8	16.0
Grand-multiparous (5 or more)	26	52.0
Total	**50**	**100.0**

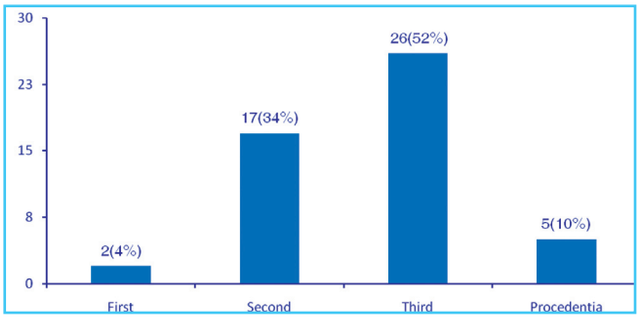

Fig.1.Bar diagram showing degree of Utero Vaginal Prolapse

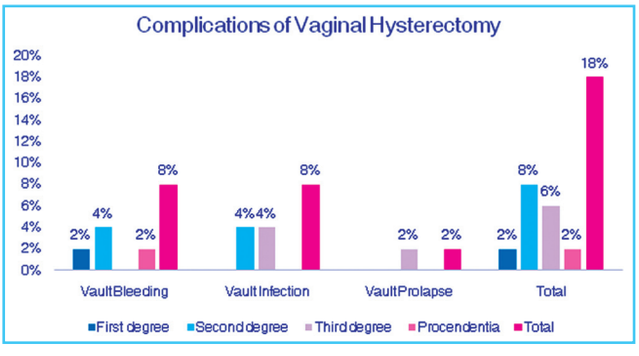

Fig.2. Complications of Vaginal Hysterectomy

Discussion

A large scale survey of hysterectomy has shown that 70.0% to 80.0% of hysterectomies are performed by the abdominal route.[1] But VH has become increasingly popular as it is associated with less febrile morbidity, less bleeding necessitating transfusion, shorter hospitalization and faster convalescence than abdominal hysterectomy.[3]CREST Study, one of the largest study, on vaginal hysterectomy showed that there is significant reduction in complication rate in vaginal route than abdominal route.[5]The most common indication for VH is UVP though it is indicated in other benign gynecological causes such as Fibroid uterus,

Adenomyosis, Dysfunctional uterine bleeding. In Nepal, over one million women mostly of reproductive age suffers from UVP and prevalence of UVP is upto17%–27%.[3,4]In our study over 5 years, 50 cases of UVP underwent VH in our institute.

In our study, the mean age of patient whounderwent VH for UVP was 57.4±9.3 (range 40-74) yrs. In similar study on Nepalese population by Sah DK et al[6]the majority of women who underwent VH were belonging to age group of 40 to 70 years. Though most of the women of reproductive age group has UVP, they present late to hospital for VH.This may be due to lack of social awareness and apprehension to visit hospital on time for UVP

In our study,all cases were multiparous except one, and the mean parity was 4.9±1.9 (range 0-9) (Table 1). Tamrakar A [7] reported 37.9% had prolapse after having more than 4 children and 27.27% had prolapse after one child. The Women's Health Initiative noted that single child birth was associated with an increased risk of uterine prolapse and every additional delivery (up to 5 births) increased the risk of prolapse by 10% to 20%. From the literature,women with 4 or more vaginal deliveries have 12 times greater risk of genital prolapse than women with less than 4 vaginal deliveries.[8]However Quiroz et al [9]found the odds of prolapse increased 10-fold with a single vaginal birth and there was no significant increase in the odds of prolapse for additional vaginal births.

In our study,80% cases had home delivery and 20 % had hospital delivery. In study by Baruwal A et al [10] most birth took place at home (72.7%).Yeniel AÖ et al [11] found vaginal delivery was associated with an odds ratio of 2.92 (95% confidence interval 1.19-7.17) for prolapse when compared with nulliparity and each vaginal delivery increased the risk of prolapse (odds ratio 1.23; 95% confidence interval 1.12-1.35) after controlling for all confounding factors.

The mean duration of UVP at presentation was 9.41 ±2.68yrs (range 0.5 -44 yrs). In the study by Tamrakar A [7] median duration of suffering from UVP was two year.Fitchett JR et al [12] reported a much skewed duration of symptoms ranging from 2 months to even 60 years, with 73.4% of women suffering for over 5 years and 28.4% suffering for over 20 years before presenting to hospital.

In this study out of 50 cases of VH,26 (52 %) cases had third degree UVP, 17(34%) cases had second degree UVP, 5 (10%) cases had procidentia and 2(4%) cases had first degree UVP.In similar study done by Sah DK et al [6], majority of cases were third degree UVP who underwent surgery. Among them 22 (44%) cases had cystocele, 22(44%) cases had rectocele and 2(4%)cases had decubitus ulcer. Gumanga SK et al [13] in their study of 112 (94.9%) cases of uterine prolapsefound 95 (80.5%) had cystocele, 16 (13.5%) patients had rectoceles and 3 (2.5%) had enterocele.

In this study out of 50 cases, 22 cases had associated comorbid condition (Hypertension alone in 15 cases, hypertension and diabetes in 5 cases, chronic obstructive pulmonary disease in 1 case, Hypothyroidism in 1 case). In similar study by Bodner-Alder B et al [3] 35% patients had a chronic obstructive pulmonary disease (COPD), 16% suffered from hypertension and 5% had diabetes mellitus. These comorbid condition has impact on anesthesiarelated and other postoperative complications.

In our study mean duration of foleys catheterization was 3.12±0.39 days(range 3-5 days) and the mean duration of hospital stay was 7.02±3.63 days (range3-20 days). In study analyzing short term versus long-term catheterization by Hakvoort R.A et al [14]mean duration of catheterization was 5.3 days in the standard prolonged catheterization group and 2.3 days in the not prolonged catheterization group ($P< 0.001$) and mean duration of hospitalization was 7 days in the standard prolonged catheterization group and 5.7 days in the not prolonged group ($P< 0.001$) thus concluded short term catheterization is better. However in study by Chong C et al [15] the incidence of urinary retention was significantly higher in women who removed indwelling catheter at day 1 (35.2%) than those at day 2 (12.0%, P=0.024), or day 3 (21.3%, P=0.044), but was similar to those at day 4 (25.0%, P=0.420) and concluded that age and postoperative day of catheter removal appear to be associated with postoperative urinary retention in women undergoing vaginal hysterectomy for pelvic organ prolapse. Keeping urinary catheter in situ at least for one day after vaginal prolapse surgery could be recommended, especially, in women older than 63 years.

The post-operative complication rate was 9/50(18%) in our study, of them vault bleeding was seen in 4(8%) cases, vault infection in 4 (8%) cases, vault prolapse in 1(2%) case (Fig 2). In study by RC Laxmi et al [16] overall complications rate was 12.5%, the most common complication was secondary hemorrhage accounting for eleven (28.2%) of all complications. In Sah Dk et al[6] and Pradananga V et al [17] found overall complication rate in VH to be as low as 5.54% and 8.6% respectively. Bleeding is still the major problem in vaginal hysterectomy. Papaloucas et al[5] in their series of 360 cases reported 4 cases of hemorrhage. Lewis TL[18] advocates immediate exploratory laparotomy with ligation of uterine or ovarian vessels for primary hemorrhage and internal iliac ligation in presence of broad ligament hematomas. Secondary hemorrhage can be tackled by vessel ligation and vaginal packing. In Sah DK et al [6]reported that 2 cases required laparotomy for post-operativehemorrhage. However in our study, only 4 cases had bleeding complications and all were vault bleeding, which was successfully managed by vaginal packing.

In all the 50 cases, the histopathology findings were suggestive of chronic cervicitis with no evidence of malignancy. The reported incidence of unexpected gynecological cancer in cases of VH ranges between 0.3 and 0.8%.[19]

Mortality rate following vaginal hysterectomy varies from 0.03% by Lewis [18]to 0.38% by Lash [20]. No mortality has been reported by Sheth [21] in their series of 687 cases. In our study also, there is no mortality associated with vaginal hysterectomy.

Conclusions

Utero vaginal prolapse is common among post-menopausal and multiparous women. Vaginal hysterectomy is safe surgical treatment for utero vaginal prolaspe.

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References

1. Easterday CL, Grimes DA, Riggs JA. Hysterectomy in the United States. Obstetrics and Gynecology. 1983 Aug;62(2):203-12.
2. Wilcox LS, Koonin LM, Pokras R, Strauss LT, Xia Z, Peterson HB. Hysterectomy in the United States, 1988-1990. Obstetrics and gynecology. 1994 Apr;83(4):549-55.
3. Bodner-Adler B, Shrivastava C, Bodner K. Risk factors for uterine prolapse in Nepal. International Urogynecology Journal. 2007 Nov 1;18(11):1343-6.
4. Gurung G, Rana A, Amatya A, Bista KD, Joshi AB, Sayami J. Pelvic organ prolapse in rural Nepalese women of reproductive age groups: What makes it so common?. Nepal Journal of Obstetrics and Gynaecology. 2007;2(2):35-41.
5. Dicker RC, Greenspan JR, Strauss LT, Cowart MR, Scally MJ, Peterson HB, DeStefano F, Rubin GL, Ory HW. Complications of abdominal and vaginal hysterectomy among women of reproductive age in the United States: The collaborative review of sterilization. American journal of obstetrics and gynecology. 1982 Dec 1;144(7):841-8.
6. Sah DK, Doshi NR, Das CR. Vaginal hysterectomy for pelvic organ prolapse in Nepal. Kathmandu University Medical Journal. 2010;8(2):281-4.
7. Tamrakar A. Prevalence of uterine prolapse and its associated factors in Kaski district of Nepal. JHAS. 2012;2(1):38-41.
8. Richter K. Massive eversion of the vagina: pathogenesis, diagnosis, and therapy of the “true” prolapse of the vaginal stump. Clinical obstetrics and gynecology. 1982 Dec 1;25(4):897-912.
9. Quiroz LH, Muñoz A, Shippey SH, Gutman RE, Handa VL. Vaginal parity and pelvic organ prolapse. The Journal of reproductive medicine. 2010 Mar;55(3-4):93.
10. Baruwal A, Somronthong R, Pradhan S. Knowledge, attitude and preventive measures amongst married women of reproductive age towards uterine prolapse in the eight villages of Surkhet district of Nepal. J Health Res vol. 2011 Sep;25(3).
11. Yeniel AÖ, Ergenoglu AM, Askar N, Itil IM, Meseri R. How do delivery mode and parity affect pelvic organ prolapse?. Acta obstetricia et gynecologica Scandinavica. 2013 Jul 1;92(7):847-51.
12. Fitchett JR, Bhatta S, Sherpa TY, Malla BS, A Fitchett EJ, Samen A, Kristensen S. Non-surgical interventions for pelvic organ prolapse in rural Nepal: a prospective

monitoring and evaluation study. JRSM open. 2015 Nov 3;6(12):2054270415608117.

13. Gumanga SK, Munkaila A, Malechi H. Social demographic characteristics of women with pelvic organ prolapse at the Tamale Teaching Hospital, Ghana. Ghana medical journal. 2014;48(4):208-13.
14. Hakvoort RA, Elberink R, Vollebregt A, Van der Ploeg T, Emanuel MH. How long should urinary bladder catheterisation be continued after vaginal prolapse surgery? A randomised controlled trial comparing short term versus long term catheterisation after vaginal prolapse surgery. BJOG: An International Journal of Obstetrics & Gynaecology. 2004 Aug;111(8):828-30.
15. Chong C, Kim HS, Suh DH, Jee BC. Risk factors for urinary retention after vaginal hysterectomy for pelvic organ prolapse. Obstetrics & gynecology science. 2016 Mar 1;59(2):137-43.
16. Laxmi RC, Das CR. Analysis of complications following vaginal hysterectomy in pelvic organ prolapse. Journal of Kathmandu Medical College. 2015;4(1):12-5.
17. Pradhanang V, Tuladhar H, Maskey S, Dali SM, Pradhan I. Review of hysterectomies at N.M.C.T.H- A retrospective study. Journal of Nepal Health Research Council 2005;3(1);34-8.
18. Lewis TL. The William Hawksworth Memorial Lecture 1970. Australian and New Zealand Journal of Obstetrics and Gynaecology. 1971 Feb;11(1):1-6..
19. Grigoriadis T, Valla A, Zacharakis D, Protopapas A, Athanasiou S. Vaginal hysterectomy for uterovaginal prolapse: what is the incidence of concurrent gynecological malignancy?. International urogynecology journal. 2015 Mar 1;26(3):421-5.
20. Lash A. F.: Vaginal surgery for nonmalignant gynaecological conditions. Illinois Med. J. 1970, 137: 490-504.
21. Sheth SS and Ashar LI.: Clinical evaluation of vaginal hysterectomy. J. Obst and Gynae India 1966, 16: 534-39.