

# Hysterectomy in the Present Day for Dysfunctional Uterine Bleeding: a finding from Tertiary Care Hospital Nepal

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## Abstract

**Introduction:** Hysterectomy is a an operative procedure in gynecology, performed for benign or malignant indication, accomplished via abdominal or vaginal routes, technically as open or endoscopic surgery by various approaches; laparoscopic, laparoscopic assisted vagina hysterectomy or robotic surgery. This study was undertaken to analyze the indications of hysterectomies for benign condition with main focus on dysfunctional uterine bleeding (DUB).

**Method:** This study was conducted between **2009 April and 2014 March** in the Department of Obstetrics and Gynaecology Tribhuvan University Teaching Hospital. Data were obtained from Operation Theater. Results were precisely reevaluated to find out the indication of hysterectomy done for benign etiology, routes of surgery.

**Results:** Fibroid, utrovaginal prolapsed (UVP), adenomyosis, endometriosis, dysfunctional uterine bleeding (DUB) and adnexal mass were the main indication in total hysterectomy (n 1644) performed for benign aetiopathologies, most surgery being performed abdominally (n1126). DUB which were principally treated by hysterectomy and occupied the fifth position as an indication had the postoperative diagnosis other than DUB on histopathological examination in more than 50%. The endometrial pathologies in the operated cases showed endometrial hyperplasia in three cases and adenocarcinoma in one.

**Conclusion:** Presently, abdominal hysterectomy is seen as the only available surgical option for DUB, indicating a need for a change in practices favoring organ preservation.

**Keywords:** Dysfunctional uterine bleeding (DUB), endometrial hyperplasia, hysterectomy.

## Introduction

Hysterectomy is a an operative procedure in obstetrics and gynecology, performed elective or an emergency operation for benign or malignant indication, accomplished via abdominal or vaginal routes, technically as open or endoscopic surgery by various approaches; laparoscopic, laparoscopic assisted vagina hysterectomy(LAVH) or robotic surgery<sup>1-9</sup>.

Studies have shown that the hysterectomies performed for benign condition are on decline currently. This is because of the availability of various medical and sampler surgical option rather than hysterectomy for treating

leiomyoma, DUB which still forms the main indication for hysterectomy, followed by adenomyosis, chronic pelvic pain and uterine prolapse<sup>10, 11</sup>. These are uterine-sparing (fertility-preserving) modalities in the management of leiomyoma and adapting selective progesterone receptor modulators (SPRMs), aromatase inhibitors, uterine artery embolization (UAE) and ultrasound waves (MRgFUS) or radiofrequency (VizAblate™ and Acessa™) and myomectomy through various routes<sup>12,13</sup>. Same holds true for DUB with discovery of mirena, an intrauterine system and ablative techniques<sup>14-16</sup>.



Hysterectomy in our TU Teaching Hospital, Obstetrics and Gynaecology Department is the second commonly performed major operation after cesarean section. As the cesarean section rates are on rise yearly, a desire to explore prevailing situation in hysterectomy indications for benign condition, mainly on abnormal uterine bleeding became the ultimatum influenced from European studies.

Retrospective study was done from Obstetrics and Gynecology Department, TU Teaching Hospital, Kathmandu Nepal, in the recent five years period from 14<sup>th</sup> April 2009 - March 2014. Data of Operation Theater Record book and histopathology reports were collected by MD Residents, and presented as academic exercise as power point slides, quarterly as well as annually were the main source. Hysterectomies done for benign conditions from all routes open/laparoscopic - major abdominal/vaginal surgeries were utilized for regrouping under different headings /subheadings such as elective/emergency surgery done either as single or combined operation. For avoiding errors or replications, the final histopathological confirmation of the post-surgical diagnosis was accepted for entry. Suppose if hysterectomy was done for DUB and the report came as leiomyoma, they were included under leiomyoma and not as DUB. Thus the numbers of hysterectomy indications were recalculated verified and reevaluated having main focus on DUB.

The indication of hysterectomy (n=1075) were uterine fibroid (n=765), uterovaginal prolapsed (UVP)(n=514), adenomyosis (168), endometriosis (58), DUB (53) and adnexal mass (38) with others (48) respectively and in small numbers were also done for pelvic inflammatory diseases, endometrial polyp or mullerian abnormalities. (Figure 1)

NB: HP-histopathology, EM-endometrium, EC-endocervical, A-adenomyosis, F-fibroid

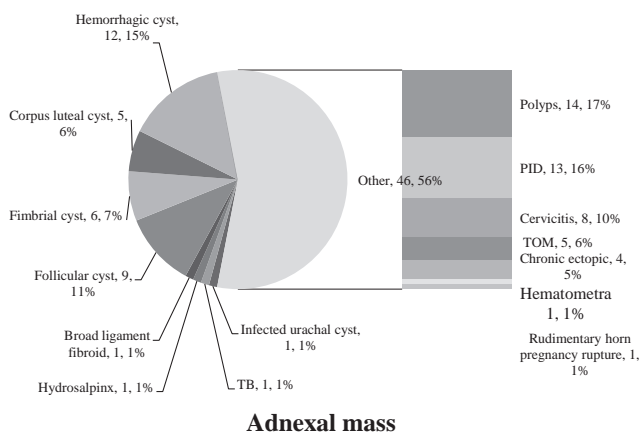
E-endometriosis, PE-proliferative, Aty-Atypical

Finally after bringing cases under a decent heading from where they deserved to be; Indications of hysterectomy were as follows, fibroid (n765); uterovaginal prolapse (n 514 ); adenomyosis (n168); endometriosis (n=58); DUB (n53); others (n 48); adnexal mass (n=38).

### Other comprised a group

In this group were polyp 14 [cervical (2) and endometrial polyp (12)]; pelvic inflammatory disease PID 13 [ four associated with endometriosis, one with tubo-ovarian abscess and two with salpingitis]. Cervicitis 8, tubo-ovarian mass, TOM (n 5; one a complicated case of mullerian aggenesis with hematometra-hematosalpinx ); chronic ectopic (n4) and a case each of hematometra, rudimentary horn pregnancy rupture, molar pregnancy & vaginal adenosis.

**In the adnexal mass**, after subtracting the endometriosis [which earlier belonged to the group, most common were presentation of cystic ovaries 26 (hemorrhagic (n12); follicular (n9); corpus luteal cyst (n5)]; fimbrial cysts (n6); and a case each of infected urachal cyst, tuberculosis, hydrosalpinx and broad ligament fibroid (**Figure 2**).



**Figure 2 Indications of hysterectomy for Adnexal mass (n=38) and others (n=48)**

In addition, there were few cases whose histopathological study were alike DUB, in whom hysterectomy indications were other than DUB such as premenopausal-postmenopausal bleeding, endometrial hyperplasia, myoma or adenomyoma. Borrowing these few cases having endometrial histopathological features of DUB, even then,

did not make up in number, after the exclusions of the non-DUB cases such as adeno-myoma and endometriosis that formed major bulk.

### Discussion

Our study shared similar indication of hysterectomy for benign conditions; congruent to others, where fibroid remained in the top among the rest.<sup>12</sup>

Although, many treatment modalities have emerged up in the twenty first century, large numbers of hysterectomies are being performed in this tertiary care center for benign pathologies, owing to the attitude of women in this part of world who merely insist on getting rid of their uterus, unaware of the aftermath of hysterectomy in terms of ovarian functions failure besides sexuality issues differing in uterine preservation views amongst the more educated affluent women in developed countries.<sup>19</sup> Recent times have opened a gate for minimally invasive endoscopic surgery, having an undebated high rise and this advent of modern technology has not been well utilized. Endoscopically performed hysterectomy, laparoscopic hysterectomy or LAVH or Robotic surgery have not been introduced in full swing, either due to the lack of enthusiasm, economic burden/ financial constraint or something else.<sup>3,4</sup>

With regards to hysterectomies for DUB, preoperative endometrial study would have eased us in making the right decision of avoiding hysterectomy, as many of them except for a few cases of atypical complex endometrial and endometrial adenocarcinoma had endometrial pictures that did not mandate hysterectomy. Such as the ones with normal endometrium, secretory endometrium or proliferative endometrium, disordered proliferative and even complex endometrial hyperplasia without atypia, in reality could have been followed up or given other choices, in the context of uterine sparing /conserving policies adapted globally in the management of DUB. To help support women to retain her uterus, mirena, a miraculous intrauterine system has revolutionised the management of DUB worldwide and succeeded ablative techniques which are popular too.<sup>14-16</sup> But what keeps us away is the cost.

It is true that, most women do prefer hysterectomy to medical management in our set up but change is possible by counseling, at least for the sake of patient's benefit and students learning.

The spirit of adapting newer technique is important and can we opt for less invasive vaginal hysterectomy procedure for non-decent uterus of DUB in preference to abdominal hysterectomy, considering, the fact that we are far from pinhole procedures?<sup>9,10,20</sup>

## Conclusion

It is imperative to march forward from the current practices of abdominal hysterectomy alone in the management of dysfunctional uterine bleeding, which is the call of the day by employing newer technological advances worth adapting.

**Conflict of interest:** None declared.

## References

1. Kovac SR. Route of hysterectomy: an evidence-based approach. *Clin Obstet Gynecol.* 2014 Mar; 57(1):58-71. doi: 10.1097/GRF.
2. Yim GW, Kim SW, Nam EJ, Kim S, Kim HJ, Kim YT. Surgical outcomes of robotic radical hysterectomy using three robotic arms versus conventional multiport laparoscopy in patients with cervical cancer. *Yonsei Med J.* 2014 Sep; 55(5):1222-30. doi: 10.3349/ymj.2014.55.5.1222.
3. Silasi DA, Gallo T, Silasi M, Menderes G, Azodi M. Robotic versus abdominal hysterectomy for very large uteri. *JSLs.* 2013 Jul-Sep; 17(3):400-6. doi: 10.4293/108680813X13693422521755.
4. Park SY, Lee JH, Choi JS, Bae J, Lee WM, Ko JH, Koh AR, Park SH. Laparoscopically assisted vaginal hysterectomy for women with anterior wall adherence after cesarean section. *JSLs.* 2014 Jul; 18(3). pii: e2014.00315. doi: 10.4293/JSLs.2014.00315.
5. Garibaldi S, Perutelli A, Baldacci C, Gargini A, Basile S, Salerno MG. Laparoscopic approach for peripartum hysterectomy. *J Minim Invasive Gynecol.* 2013 Jan-Feb; 20(1):112-4. doi: 10.1016/j.jmig.2012.08.779
6. Okeke TC, Ezenyeaku CC, Ikeako LC. Caesarean hysterectomy. *Niger J Med.* 2013 Apr-Jun; 22(2):83-8.
7. Al-Sibai MH<sup>1</sup>, Rahman J, Rahman MS, Butalack F. Emergency hysterectomy in obstetrics--a review of 117 cases. *Aust N Z J Obstet Gynaecol.* 1987 Aug; 27(3):180-4.
8. Khan B, Khan B, Sultana R, Bashir R, Deebea F. A ten year review of emergency peripartum **hysterectomy in a tertiary care** hospital. *J Ayub Med Coll Abbottabad.* 2012 Jan-Mar; 24(1):14-7.
9. Agnaeber K, Bodlal Z. A comparison of abdominal and vaginal hysterectomies in Benghazi, Libya. *J Obstet Gynaecol.* 2013 Aug; 33(6):613-6. doi: 10.3109/01443615.2012.762349.
10. Geidam DA, Audu BM, Bukar MB. Morbidity of total abdominal hysterectomy at the University of Maiduguri Teaching Hospital, Maiduguri, Nigeria. *Niger J Med.* 2010 Oct-Dec; 19(4):467-70.
11. Tiwana KK, Nibhoria S, Monga T, Phutela R. Histopathological audit of 373 nononcological hysterectomies in a teaching hospital. *Patholog Res Int.* 2014; 2014:468715. doi: 10.1155/2014/468715. Epub 2014 Sep 9.
12. Khan AT, Shehmar M, Gupta JK. Uterine fibroids: current perspectives. *Int J Womens Health.* 2014 Jan 29; 6:95-114. doi: 10.2147/IJWH.S51083. eCollection 2014.
13. Keriakos R, Maher M. Management of Cervical Fibroid during the Reproductive Period. *Case Rep Obstet Gynecol.* 2013; 2013:984030. doi: 10.1155/2013/984030. Epub 2013 Sep 15.
14. Lete I, Cristóbal I, Febrer L, Crespo C, Arbat A, Hernández FJ, Brosa M. Economic evaluation of the levonorgestrel-releasing intrauterine system for the treatment of dysfunctional uterine bleeding in Spain. *Eur J Obstet Gynecol Reprod Biol.* 2011 Jan; 154(1):71-80. doi: 10.1016/j.ejogrb.2010.08.019. Epub 2010 Oct 15.
15. Sharma B, Preston J, Ray C. Microwave endometrial ablation for menorrhagia: outcome at 2 years' experience of a district general hospital. *J Obstet Gynaecol.* 2004 Nov; 24(8):916-9.
16. Abbott J, Hawe J, Hunter D, Garry R. A double-blind randomized trial comparing the Cavaterm and the NovaSure endometrial ablation systems for the treatment of dysfunctional uterine bleeding. *Fertil Steril.* 2003 Jul; 80(1):203-8.
17. Lykke R, Blaakaer J, Ottesen B, Gimbel H. **Hysterectomy in Denmark 1977-2011: changes in rate, indications, and hospitalization.** *Eur J Obstet Gynecol Reprod Biol.* 2013 Dec; 171(2):333-8. doi: 10.1016/j.ejogrb.2013.09.011. Epub 2013 Sep 20.
18. Parazzini F, Ricci E, Bulfoni G, Cipriani S, Chiaffarino F, Malvezzi M, Frigerio L. Hysterectomy rates for benign conditions are declining in Lombardy, Italy: 1996-2010. *Eur J Obstet Gynecol Reprod Biol.* 2014 Jul; 178:107-13. doi: 10.1016/j.ejogrb.2014.04.024. Epub 2014 Apr 26.
19. Siddle N, Sarrel P, Whitehead M. The effect of hysterectomy on the age at ovarian failure: identification of a subgroup of women with premature loss of ovarian function and literature review. *Fertil Steril.* 1987 Jan; 47(1):94-100.
20. Teoh Tg. Outcome of vaginal hysterectomy for the undescended and enlarged uterus-a preliminary report. *Med J Malaysia.* 1996 dec; 51(4):415-9.