

# HYSTERECTOMY FOR MENORRHAGIA: CURRENT TRENDS

Manju Puri, Sharda Patra

Department of Obstetrics and Gynecology,  
Lady Hardinge Medical College and Smt. S.K. Hospital, New Delhi-110001, India

**Abstract :** Menorrhagia is defined as heavy cyclical bleeding occurring at normal intervals with bleeding increased either in amount (> 80 ml) or duration (>7 days). A detailed history and examination can help the clinician make a fairly accurate probable diagnosis. Further investigations to confirm the diagnosis are guided by factors like age of the woman, presence or absence of high risk factors for endometrial carcinoma and by presence of indicators of any underlying abnormality. The first step is to rule out pregnancy and assess for severity and type of anemia by a detailed blood count and peripheral smear. Depending on the history, bleeding disorders and other medical disorders like hypothyroidism and PCOS should be investigated. As far as use of various diagnostic procedures for evaluation of endometrium is concerned, TVS appears to be a logical first choice as it is simple, non-invasive and cost-effective and helps in deciding the next step in work up of menorrhagia. If a focal lesion is suspected on TVS, SIS or hysteroscopy directed biopsy is indicated and if a diffuse lesion is suspected then an office endometrial biopsy may suffice.

## INTRODUCTION

Various treatment options are available for women suffering from menorrhagia namely medical management - hormonal and non-hormonal, minimally invasive endometrial ablative procedures and hysterectomy. Conventionally hysterectomy was the most accepted method for treatment of menorrhagia. However increased use of effective haemostatic agents like tranexamic acid, progesterone releasing intrauterine system (Mirena) and emergence of simple, safe and effective minimally invasive ablative procedures have given a new dimension to the management of menorrhagia. Currently medical management is preferred as the first line treatment for menorrhagia. Over the past decade, the rate of hysterectomy for menorrhagia has shown a significant decline. There has been a 36% reduction in the rate of hysterectomy in United Kingdom and all over the world<sup>1</sup>. Similar trend has been reported from India<sup>2</sup>.

Hysterectomy still remains the treatment of choice for women with menorrhagia due to fibroids, adenomyosis and endometrial hyperplasia with atypia. Many women with menorrhagia due to other causes also opt for hysterectomy due to the side effects, complications and limited efficacy of other alternative methods of treatment. Hysterectomy is not only associated with a higher long term satisfaction rate but also with a significantly higher morbidity and mortality<sup>3</sup>.

## HYSTERECTOMY VERSUS OTHER ALTERNATIVE METHODS

Currently medical management is the first line therapy in the women with menorrhagia, a large number of women still opt for hysterectomy. In a review of eight trials by Marjori banks et al<sup>4</sup>. 58% of women randomized for medical treatment under went surgery with in two years due to lack of satisfaction with treatment. However LNG IUS is a highly effective treatment for menorrhagia and is a potential alternative to surgery. On comparing *hysterectomy* with *endometrial ablation*, randomized control trials have shown that hysterectomy is associated with greater cost, higher morbidity and longer recovery time but a significantly greater satisfaction rate<sup>5,6</sup>.

Currently there are certain *hysterectomy related issues* that are being widely discussed and debated. These include the optimal route of hysterectomy, need for prophylactic oophorectomy and whether total or sub total hysterectomy should be performed for menorrhagia.

## HYSTERECTOMY FOR MENORRHAGIA

### Optimum route of hysterectomy

Hysterectomy can be performed by abdominal, vaginal or

laparoscopic route. The decision regarding the optimum route is influenced by multiple factors like indication of surgery, size of uterus, any associated pathology, need for concurrent removal of adnexa and expertise of the surgeon. Each approach has its own advantages and disadvantages. Abdominal hysterectomy is the most popular method. It has a distinct advantage of good exposure and easy access to ovaries, retropubic space and upper abdomen but is associated with higher complication rates and longer hospital stay and recovery time. In the past vaginal hysterectomy was mainly done for uterovaginal prolapse. However recently there has been a considerable increase in the popularity of vaginal hysterectomy even in the absence of uterovaginal prolapse - non descent vaginal hysterectomy. It is associated with faster recovery, lesser post operative pain, lower complication rate and shorter hospital stay. It is not the method of choice in uteri more than 12 weeks in size, uterine malignancy and presence of dense adhesions and associated adnexal pathology.

Laparoscopic hysterectomy was initially introduced as a method of making a difficult vaginal hysterectomy easy by releasing adhesion and laparoscopic removal of adnexa etc. The patient recovery, post-operative pain and hospital stay are comparable to vaginal hysterectomy but the complication rate is significantly high. It has a longer learning curve and requires expensive equipment. LAVH is a good choice for women undergoing a difficult vaginal hysterectomy. Thus vaginal hysterectomy appears to be the best route for hysterectomy in the absence of significant pathology like adhesions, adnexal mass, malignancy etc. in which case either an abdominal or laparoscopic hysterectomy should be preferred. The final decision regarding the optimum route lies with the operating surgeon depending on his experience.

### Prophylactic oophorectomy with hysterectomy for menorrhagia due to benign causes:

The rationale of concurrent removal of ovaries at the time of hysterectomy is primarily the risk and fear of ovarian cancer and future gynecological interventions. The percentage of women undergoing prophylactic oophorectomy in US is 38% in 18-44 yr age group and 78% in 45-64 yr age group<sup>7</sup>. Majority are performed in women at low risk of ovarian cancer. The overall lifetime risk of ovarian cancer is 1-1.5% and it increases to 5-7% in women with a positive family history of ovarian cancer. The reported risk of ovarian cancer in women with hysterectomy for benign disease is 0.45% as the ovaries that are left behind at the time of hysterectomy are essentially normal.

Although the removal of ovaries prevent ovarian cancer but it is

**Correspondence:** Prof. Manju Puri, Department of Obstetrics and Gynecology, Lady Hardinge Medical College and Smt. S.K. Hospital, New Delhi-110001, India

also associated with a decline in hormones and its related problems. Sudden fall in the hormones following surgical oophorectomy result in vasomotor instability and subsequently genitourinary atrophy, decrease in libido, depression, dementia, and a 2 fold increase in the cardiovascular disease and osteoporosis. All these changes severely affect the quality of life of these women and contribute significantly to increase in morbidity and mortality due to coronary artery disease and fracture neck femur.

Ovarian hormones both estrogens and androgens play an important role in bone metabolism. They increase the bone formation and inhibit the bone resorption. Oophorectomy even after menopause is associated with a 50% increased risk of osteoporotic fractures as compared to women with intact ovaries<sup>8</sup> and women older than 60yr have a 2 fold increase in mortality (OR 2.18, CI 2.03- 2.32) after low trauma hip fracture<sup>9</sup>. As regards coronary artery disease, hysterectomy with oophorectomy is an independent risk factor for myocardial infarction or coronary artery disease<sup>10</sup>. The number of years elapsed after menopause directly correlate with occurrence and severity of atherosclerosis<sup>11</sup>. Oophorectomy even after 50 yrs of age increases the risk of MI by 40% (RR 1.4 CI 1.0-2.0) as compared to controls<sup>12</sup> and CAD is the most common cause of death amongst women.

In a recent review of 20 years of published data by Parker et al<sup>13</sup> to study the relative risk of various oophorectomy related conditions has shown that ovarian conservation confers an overall survival advantage of 8.5% compared to a 0.47% mortality risk from ovarian cancer. This survival advantage is due to lesser women dying of CAD and fracture neck femur. Thus prophylactic oophorectomy is associated with a decrease in risk of ovarian cancer but an increase in risk of all cause mortality and fatal and non-fatal CAD.

This supports ovarian conservation at the time of hysterectomy for benign disease. In women with no high risk factors for ovarian cancer there seems to be a benefit of ovarian conservation at the time hysterectomy for benign disease with resultant decrease in risk of mortality due to CAD in women < 65 year of age and decrease in mortality due to fracture neck femur in those > 65 year<sup>14</sup>.

## TOTAL VERSUS SUBTOTAL OR SUPRA CERVICAL HYSTERECTOMY

Total hysterectomy includes removal of both uterus and cervix where as subtotal or supracervical hysterectomy means removal of only body of the uterus leaving behind the cervix. Subtotal hysterectomy is usually performed in obstetrics for indications like PPH and rupture uterus in women with unstable general condition. The rationale for subtotal hysterectomy in these patients is to shorten the operation time. Most of the hysterectomies performed for gynecological indications are total except in rare circumstances where removal of cervix is likely to be associated with damage to surrounding organs. An increase in rate of subtotal hysterectomy for gynecological indications was observed in 1990's especially with increasing popularity of laparoscopic hysterectomy. The suggested factors in favor of subtotal hysterectomy were a decrease in damage to surrounding organs, complications, operative time and post operative problems like urinary symptoms, prolapse and sexual dysfunction. This was based on the understanding that the Frankenhauser nerve plexus was spared during subtotal hysterectomy. However recent studies have shown that there is no statistically significant difference in sexual and urinary problems following subtotal or total hysterectomy<sup>15</sup>. On the contrary subtotal hysterectomy is associated with cervical stump problems like persistent bleeding per vaginum<sup>16</sup> and cervical stump carcinoma which may subsequently require

trachelectomy<sup>17</sup>. Moreover an increased tendency towards prolapse and urinary incontinence has been reported with subtotal hysterectomy possibly due to the absence of vault suspension in these cases<sup>15</sup>.

Total hysterectomy has the advantage of lesser women suffering from urinary incontinence prolapse and cervical stump related problems where as subtotal hysterectomy reduces operative time, blood loss during surgery and possibly complications like organ damage and infection. Thus total hysterectomy should be preferred over subtotal hysterectomy except in some patients where removal of cervix may be technically very difficult.

Thus hysterectomy has a definite place in the management of menorrhagia as it is the only definitive method of treatment. But unlike in the past it is not offered as the first line of treatment for menorrhagia except in women with menorrhagia due to fibroids, adenomyosis, DUB with histopathological diagnosis of endometrial hyperplasia with atypia or uterine malignancy. Vaginal hysterectomy should be the route of choice except if the uterine size is >12 weeks, there are extensive adhesions due to PID or endometriosis, associated adnexal pathology or suspected malignancy. Total hysterectomy should be done in all cases of menorrhagia unless removal of cervix is very difficult. The issue of ovarian conservation or removal should be discussed with all women undergoing hysterectomy for menorrhagia and an informed consent should be taken. All women who have not yet attained menopause should be encouraged to retain their ovaries if there is no family history of ovarian cancer. In those undergoing oophorectomy informed consent should include the increased risk of coronary artery disease and osteoporosis with removal of the ovaries.

## REFERENCES

1. Reid PC., Mukri F. Trends in number of hysterectomies performed in England for menorrhagia: examination of health episode statistics, 1989 to 2002-3. *BMJ* 2005; 330: 938-9
2. Jai B Sharma et al. A welcome and worldwide trend in hysterectomies. *British Medical Journal* 2005 Rapid responses 25 Apr
3. Maresh MJ, Metcalfe MA, McPherson K, et al. The VALUE national hysterectomy study: description of the patients and their surgery. *Br J Obstet Gynaecol* 2002;109:302-312.
4. Marjoribanks J, Lethaby A, Farquhar C. Surgery versus medical therapy for heavy menstrual bleeding. *Cochrane Database Syst Rev* (2006) CD003855.
5. Working Party of the National Health Committee New Zealand. Guidelines for the management of heavy menstrual bleeding. Wellington: Ministry of Health, 1998
6. Lethaby A, Shepperd S, Farquhar C, Cooke I. Endometrial resection and ablation versus hysterectomy for heavy menstrual bleeding. *Cochrane Database of Systematic Reviews* 2009, Issue 2.
7. Keshavarz H, Hillis S, Kieke B, Marchbanks P. Hysterectomy surveillance – United States, 1999–1999. *MMWR CDC Surveill Summ* 2002; 51 : 1-8 Available at : <http://www.cdc.gov/mmwr/PDF/ss/ss5105.pdf>
8. Melton LJ 3rd, Khosla S, Malkasian G, et al. Fracture risk after bilateral oophorectomy in elderly women. *J Bone Miner Res*. 2003;18:900-905.
9. Keene GS, Parker MJ, Pryor GA. Mortality and morbidity after hip fractures. *BMJ* 1993;307:1248-50.
10. Hsia J, Barad D. Usefulness of prior hysterectomy as an independent predictor of Framingham risk score (The Women's Health Initiative) Women's Health Initiative Research Volume 92, Issue 3, pages 264-269
11. Mack WJ, Slater CC, Xiang M, et al. Elevated subclinical atherosclerosis associated with oophorectomy is related to time since menopause rather than type of menopause. *Fertil Steril*. 2004;82:391-397.
12. Colditz GA, Willett WC, Stampfer MJ, et al. Menopause and the risk of coronary heart disease in women. *N Engl J Med*. 1987;316:1105-1110
13. Parker WH, Broder MS, Chang E, Feskanich D, Farquhar C, Liu Z, et al. Ovarian conservation at the time of hysterectomy and long-term health outcomes in the nurses' health study. *Obstet Gynecol*. 2009 May;113(5):1027-37.
14. Parker WH, Broder MS, Liu Z, Shoupe D, Farquhar C, Berek JS. Ovarian conservation at the time of hysterectomy for benign disease. *Obstet Gynecol* 2005;106:219-226
15. Gimbel H, Zebbe V, Anderson B J et al : Lower urinary symptoms after total and subtotal hysterectomy results of a randomized controlled trial . *Internal Urogynecol J* 16: 257 2005 (a).
16. Okara EO, Jones KD, Sutton C Long term out come following laparoscopic supra cervical hysterectomy *Br J Obstet Gynecol* 2001; 108: 1017-1020.
17. Gimbel H, Zebbe V, Anderson B J et al : Total versus subtotal hysterectomy. An observational study with one year follow up *Aust NZ J Obstet Gynecol* 45-64 2005 (b)