

VAGINAL HYSTERECTOMY - PROPHYLACTIC OOPHORECTOMY

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SUMMARY.

A series of one hundred vaginal hysterectomies is presented wherein an attempt was made to perform prophylactic oophorectomy like what would have been performed if hysterectomy was by an abdominal route.

Indications, technique, pre-requisites, contra-indications are discussed in detail. Place of prophylactic oophorectomy by vaginal route is crystallised.

Oophorectomy was successful in 96 out of 100 and in all who had third degree uterine descent. A plea is made to perform the oophorectomy, if required, when hysterectomy is by vaginal route and neither change the route nor omit oophorectomy.

Introduction

Practice of prophylactic removal of ovaries is inconsistent among Gynaecologists because of technical difficulties in performing the surgery, the routine removal of normal ovaries is carried out less frequently with vaginal than with abdominal hysterectomy.

Normal looking ovaries were removed because hysterectomy provided the opportunity to implement this prophylaxis. No hysterectomy was performed solely for the prophylactic removal of ovaries. However, patients requiring ovarian removal for reasons other than

prophylaxis are not included in this study (like vaginal oophorectomy for breast cancer and so on).

Material & Methods

This study comprises of one hundred vaginal hysterectomies with oophorectomy performed between March 1988 to July 1989 by senior author at his private clinic, Sir Hurkisondas Hospital and King Edward Memorial Hospital. Thirty four women were below 46 years of age, 60 were between 46 and 50 years of age and 6 were over 61 years. Thirty six had established menopause, while 64 were still menstruating.

Indications for hysterectomy varied. Dysfunctional uterine bleeding and adenomyosis were

the commonest followed by fibroids and uterine prolapse.

Oophorectomy was favoured in all women who were (1) Post-menopausal, (2) Menstruating but older than 45 years of age and (3) Older than 40 years with a past history of ovarian neoplasm or a family history. In these indications, ovaries were preserved in a few, because of cardiac or gynaecological status.

Technical Details

Wright (1974) described oophorectomy at vaginal hysterectomy after removal of the uterus. Nicholas (1988) detailed steps of oophorectomy as well as salpingo-oophorectomy at vaginal hysterectomy. Additionally, author includes pre-requisites for ovarian removal and some finer points of surgical technique to serve as guidelines.

The decision to perform salpingo-oophorectomy as opposed to only oophorectomy can be made only after the uterus is severed from all its connections on both sides except upper pedicle on one side on which it hinges, i.e. contralateral upper pedicle which consists of the round ligament, utero ovarian ligament and fallopian tube. If salpingo-oophorectomy appears difficult or impossible, hysterectomy is completed by severing the remaining upper pedicle as above and bilateral oophorectomy attempted. This procedure will be described later.

If salpingo-oophorectomy appears possible, the uterus which has been severed on one side is turned so that the severed side faces the operator and the posterior uterine surface faces the severed side. In order to provide free and easy access to clamp the infundibulopelvic ligament or to determine the ease or difficulty in performing salpingo-oophorectomy, the round ligament must be separately cut and sutured. A clamp is then applied from below/upwards, lateral to or posteriorly inferior to the utero ovarian ligament across the mesosalpinx until it reaches beyond the infundibulopelvic ligament on the unsevered side with

the concave surface of the clamp placed medially. This part probably may be performed in two or three steps, but mostly one clamp may cover the entire length thus avoiding additional instrumentation. The infundibulopelvic ligament is transfixed and secured. Attention is then turned to the remaining ovary or ovary with tube on the side where all uterine connections were severed earlier. This ovary is removed in the same fashion along with the concave surface of the clamp placed medially.

If this appears inconvenient or unsafe, the ovary is grasped, pulled into the operative field and excised by placing a clamp laterally beyond the ovarian tissue on the uteroovarian ligament and mesoovarium to include the space between two leaves of broad ligament near to the ovary and away from the tube to avoid injury to adjacent mesosalpinx. The tube should then be brought down, covering the area. For this, retraction of the bladder and the vaginal wall with Jayle's and/or Deaver's retractors will be helpful. The patient is given an injection of Mixogen on the day of surgery and followed up with Oral oestrogen replacement.

Pre-requisites for oophorectomy

Every attempt is made to remove ovaries if so planned. Pre-requisites for this include (1) tubo-ovarian normalcy, (2) accessible and mobile ovaries, (3) good retraction and light, (4) reliable clamp and suturing material, (5) experienced vaginal surgeon, (6) keenness to perform and succeed.

Surgery is contraindicated by (1) adhesions, (2) high immobile atrophic ovaries, (3) cramped space and (4) possibility of fear of slippage or damage with clamp and/or suture. Special attention should be paid to the following steps:-

(1) For salpingo-oophorectomy, the round ligament must be cut separately, (2) Use of a specially designed clamp, curved one inch terminally, (3) Extra gentleness, (4) The use of

proper light including fibre optic head light is helpful and(5) Use of a long roller gauze for better exposure.

Results

In one hundred cases, oophorectomy was attempted after completion of vaginal hysterectomy. It was not possible to remove both ovaries in 3 patients and one ovary in one patient. (Table-I).

TABLE I

Oophorectomy	Bilateral	Uni-lateral
	97	99
Salpingooperectomy	Bilateral	Uni-lateral
	80	20

Oophorectomy was possible in all women with third degree or greater uterine descent. Similarly, removal was simple in all patients who were non-obese with normal sized uteri and patulous vagina.

Removal was impossible in 4 patients due to obesity, nulliparity, non-descent of uterus and non-patulous vagina. Salpingoophorectomy was bilateral in 45, unilateral with contralateral oophorectomy in 23, bilateral oophorectomy in 28, unilateral oophorectomy with contralateral failure in one and bilateral failure in 3 (Table II).

TABLE II

Factors affecting failure of salpingooperectomy	
Obese	... 6
Nullipara	... 1
Narrow space	... 8
No uterine descent	... 3
Non-patulous vagina	... 2
Enlarged uterus (Upto 12 weeks)	... 2

Surgical time

The extra surgical time varied from 11 to 30 minutes. It was 20 minutes or less in 88 cases; in 12 it took 21 to 30 minutes.

Hospital stay

It majority of cases, hospital stay was fewer than 7 days. It was three to four days in 44 cases.

Complications

There was no injury to the ureter, bladder or intestines in any patient. There was no injury to the ureter, bladder or intestines in any patient and in nine there was slippage of pedicle. No patient required blood transfusion purely because of additional oophorectomy.

Discussion

After their extensive review of the literature, Jacobs and Oram (1988) support routine prophylactic oophorectomy at the time of pelvic surgery, if the ovaries are accessible in menopausal or post-menopausal women. Studd (1987) supports oophorectomy at the time of hysterectomy in all women over 40, ovarian hormone deficiency being reversed by hormone replacement therapy preventing residual ovarian hormone and the ovarian cycle syndrome.

Seven percent of ovarian cancer could be prevented if prophylactic oophorectomy was routinely performed. A survey of Fellows and members of the Royal College of Obstetricians & Gynaecologists regarding the practice of prophylactic oophorectomy demonstrated that 51.8% perform this surgery in women over 49 and 85.3% in post-menopausal women.

Capen et al (1983) found that 60% to 70% of ovaries could be removed through the vagina and suggest elective removal of the ovaries through the vagina in selected patients.

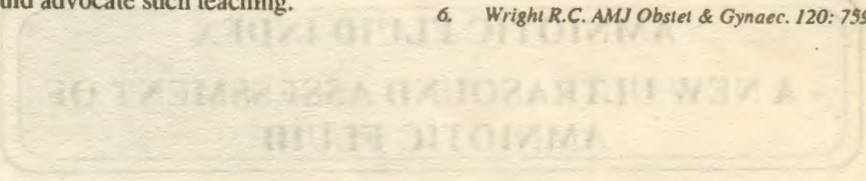
In personal correspondence, Woodruff J.D.(1986) writes "ovaries should be removed in patients over the age of 40 years, if the abdomen

would be opened for any reason". He further advocates the prophylactic removal of ovaries when the procedure is vaginal "if the surgeon has adequate skill".

The author believes that the route of hysterectomy should not alter the decision for prophylactic oophorectomy and the decision to perform oophorectomy should not alter the route for hysterectomy. Those well versed in vaginal surgery should advocate such teaching.

References

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Amniotic Fluid Volume measured in cubic centimeters (cc) using the technique of the Amniotic Fluid Index (AFI) was measured in relationship to Fetal Heart Rate (FHR) and perinatal mortality in 115 obstetric patients. An inverse relationship was found between AFI and FHR. The average AFI was found to be 12.7 ± 2.5. A correlation of 0.70 was found between AFI and FHR. The important finding was that adverse perinatal outcome was significantly more frequent with severity of oligoamniotic fluid even if the AFI was greater.

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