CLINICAL EVALUATION OF VAGINAL HYSTERECTOMY*

by

SHIRISH S. SHETH,** M.D., F.C.P.S., D.G.O.

L. I. ASHER,*** M.B.B.S., D.G.O.

With passage of time hysterectomy has become commoner due to increased safety. With this change the abdominal route of operation is much on the decline, and in the vast majority of cases vaginal route has become one of choice. The popularity of vaginal route is due to less operative complications and extremely smooth convalescence. Today it appears that choice of route is always vaginal unless indicated otherwise.

Methods and Material

This study deals with 687 cases of vaginal hysterectomies performed at King Edward VII Memorial Hospital Gynecological Department, between 1960 to 1964. There were a total of 999 hysterectomies during these years, of which 312 were abdominal, giving an incidence of 31.2%, as opposed to vaginal 68.8%.

*Department of Gynaecology, K. E. M. Hospital, Parel, Bombay 12.

**Assistant Honorary Obstetrician & Gynaecologist and Assistant Proffessor at K. E. M. Hospital and G. S. Medical College.

***Resident House Surgeon at K. E. M. Hospital.

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Age

The distribution of 687 cases of vaginal hysterectomy shows that 51.2% of the patients were between 40 to 49 years, 26.5% between 30 to 39 years, 16% between 50 to 59 years, 5.3% between 60 to 69 years and only 1% below the age of 30 years. Although it is desirable to preserve the uterus till the age of 40 for its two physiological functions of childbearing and menstruation, it was found expedient to do 27.5% of hysterectomies in the present series below the age of 39 years. These were done for marked prolapse or intractable dysfunctional uterine bleeding.

Parity

It was noticed that maximum number of cases was in the 5th parity group (21.1%) and minimum in nulliparous group (0.29%); this latter group consisted of 2 widows in their early forties with dysfunctional uterine bleeding.

Complaints

These cases had come to hospital with one or other complaint. It was interesting to note that, out of 318 patients with marked prolapse, only 247 (77%) complained of prolapse as shown in Table I, 270 came with excessive or irregular bleeding. Other common complaints were

TABLE I
Complaints

Complaints	No. of cases
Something coming down per vaginam	247
Excessive or irregular periods	270
Backache	141
Leucorrhoea	97
Abdominal pain	89
Dysmenorrhoea	17
Stress incontinence	11
Dysuria	10
Miscellaneous	25

backache in 141, leucorrhoea in 97 and abdominal pain is 89, besides dysmenorrhoea, stress incontinence, dysuria, constipation, burning micturition, retention of urine, amenorrhoea and dyspareunia in a few. Some of these had additional complaints of prolapse or dysfunctional bleeding.

Associated conditions

Due to poverty and illiteracy in our country, conditions like malnutrition, anaemia, avitaminosis and tuberculosis are common. It was noticed that 113 patients had low general health, 69 had moderate or severe anaemia (Hb. less than 50%), 25 had hypertension and 17 had chronic cough. Before undertaking this major operation it is necessary to correct anaemia and general low health, as also to control diabetes, hypertension and chronic cough. This will certainly reduce operative and postoperative mortality.

Indications

Table II shows the indications for vaginal hysterectomy. Commonest indication was uterine prolapse with or without cystocele and rectocele in 46.3%, while dysfunctional uterine bleeding was next on the list, in 41.9%. Vaginal hysterectomy with repair (Mayo-Ward's hysterectomy) is the choice of operation in patients who have past the age of 40 years and have second degree prolapse. In cases with third degree prolapse indication could be stretched to the age of 35 years provided childbearing is completed. Table II shows that it was carried out in 22 cases for uterine fibroids, 10 cases for unhealthy cervix, 7 each of adenomyosis and cervical polyps and in I case for septic abortion with tetanus.

TABLE II
Indications

Indications	No. of cases	Percentage
Uterine prolapse with or without cystocele and rectocele	318	46.3
Dysfunctional uterine bleeding.	288	41.9
Uterine prolapse and dysfunctional uterine bleeding.	34	4.9
Fibroids	22	3.2
Unhealthy cervix	10	1.4
Adenomyosis	7	1
Cervical polyps	7	1
Septic abortion with tetanus	1	0.14
Total	687	

Anaesthesia

Spinal was the anaesthesia of choice used in 568 cases. This was supplemented by general anaesthesia in 98 cases where Mayo-Ward's hysterectomy was carried out needing more time. Simple vaginal hysterectomy took 18 minutes to 1½ hours in different hands while Mayo-Ward's hysterectomy needed 45 minutes to 2½ hours. Nineteen cases were given general anaesthesia and in 2 epidural anaesthesia was used.

Operation

The operative technique was as described by Bonney except for one major point of difference, this being total absence of usage of clamps. Instead of clamps, sutures were used, directly followed by cutting the ligaments, vessels and tissues medial to them by scissors. This certainly facilitates the job tremendously by widening the operative space, ease of operability, quickness and less sloughing of tissues which are otherwise crushed. Credit for this must go to Dr. B. N. Purandare, a master of vaginal surgery, who is totally against the use of clamps in this operation.

Simple vaginal hysterectomy alone was carried out in 393 cases while in 40 more cases some sort of additional surgery was done as shown in Table III. Mayo-Ward's hysterectomy was

TABLE III
Type of Operation

Type of operation	No. of cases
Simple vaginal hysterectomy	393
Mayo-Wards hysterectomy	254
Simple vaginal hysterectomy with additional surgery.	40
Total	687
Additional surgery :	
Posterior colporrhaphy	24
Myomectomy	2
Bilateral salpingo-oophorectomy	3
Ovarian cystectomy	2
Anterior vaginal wall cyst removal	2
Colpectomy	1
Excision of piles	5
Repair of rectal prolapse	1
Total	40

performed in 254 cases. In a few cases myomectomy or bisection of uterus prior to hysterectomy, salpingo-ophorectomy, or ovarian cystectomy were performed. In one case transplantation of ureters into the sigmoid colon was carried out per vaginam simultaneously after hysterectomy. In a few, excision of piles and in one repair of rectal prolapse were done simultaneously.

Operative difficulties

In 6 cases bladder injuries occurred. Hysterectomy proved to be difficult though successful in 5 cases. Four cases needed morcellation of fibroids, in I bisection of uterus, and in I tubo-ovarian masses could not be removed by the vaginal route. We very strongly recommend a routine habit of performing a thorough examination under anaesthesia before proceeding with the operation. This will certainly pay rich dividends in occasional cases. There was not a single case where it was given up, due to failure, to proceed with abdominal hysterectomy.

Blood transfusions

It would be desirable to have the patient free from anaemia but this is impossible in practice. Bulk of the patients had haemoglobin 51 to 70% in 467 patients; 68 patients had haemoglobin less than 50% while 138 had more than 70%. Only 116 patients were given one or more blood transfusions while the remaining did not require it.

Post-operative complications

Table IV shows the various post-operative complications. The commonest was temperature in 285 cases out of which 207 had urinary tract infection. Out of the remaining 78 cases temperature was reactionary to operation in 48, due to blood trans-

TABLE IV

Post-Operative Complications

Complications	No. of cases	Percentage
Pyrexia	285	41.5
Urinary tract sepsis	207	30.1
Retention of urine	168	24.4
Diarrhoea	14	2.0
Sloughing at the site of wound	7	1.0
Secondary haemorrhage	3	0.4
Thrombophlebitis	3	0.4
Post-operative collapse	3	0.4
Mild peritonitis	2	0.2
Vesico-vaginal fistula	1	0.1
Purulent meningitis	1	0.1

fusion in 24, thrombophlebitis in 3, peritonitis in 2 and meningitis in one case.

Urinary sepsis has remained a bugbear of vaginal surgery. Due to operative interference in the bladder region and necessity of catheterisation or self-retaining catheter, incidence of urinary tract sepsis is quite high in most of the series in the literature. In the present series 30.1% (207) of the cases had urinary sepsis accounting for pyrexia and discomfort. This has a great clinical bearing as it is a likely source of pyelonephritis, recurrent pyelitis and other renal complications in future. Due to pain at the operative site, retention of urine is a common finding and it occurred in 168 cases. This complaint usually disappears within 24 hours in the majority of cases.

Sloughing at the site of the wound was present in only 7 cases (1%). This is mainly because of absence of clamps during operative technique which avoided crushing of the tissues. Other complications are outlined in table. Finally, the list cannot be complete unless one mentions post-spinal headache which occurred in 62 cases (10.9%).

Not a single patient died in the present series as a result of vaginal hytserectomy. The only case who succumbed was the one with tetanus where hysterectomy was tried as a last resort on physician's advise. Copenhaver (1962) reports death in 2 out of 1000 cases.

Follow-up Study

This has always remained a difficult task. Many have changed their residential quarters, many have come from distant places and some did not respond to call for this study. However, 220 patients did turn up for follow-up study out of 687 cases, thus 32% of all cases were followed up and studied in detail. Their complaints, satisfaction or regret, and clinical findings were recorded. There was no major complaint against or attributable to the operation. Six patients complained of something coming down per vaginam, 5 patients had dyspareunia and 2 had stress incontinence. All other patients were symptom free. Many patients complained of low general health (weakness and anorexia) which was even

TABLE V

Clinical Findings in Followed up Cases

Findings	No. of cases
Cystocele	18
Rectocele	12
Enterocele	4
Vault prolapse	2
Urethrocele	1
Urethral caruncle	3
Moniliasis	8
Dyspareunia	5
Parametritis	3
Senile vaginitis	2
Stress incontinence	2
Total	60

otherwise present at the time of operation.

Table V indicates the clinical findings in 220 cases followed up on examination. Total of 36 (5.2%) patients had prolapse of one or other genital structure, eighteen had cystocele, 12 had rectocele, 4 had enterocele and 2 had vault prolapse. Prolapse was only slight in all these cases except 6 who complained of it. Out of these 36 cases, 20 were operated in the past for prolapse, while the remaining were operated on for dysfunctional bleeding or for other indication. In these cases either rectocele or enterocele were missed or they appeared later on. Point of importance is to look for any type of prolapse in simple vaginal hysterectomy and undertake adequate repair after removing the uterus.

Moniliasis was present in 8 cases, dyspareunia in 5, parametritis in 3, senile vaginitis in 2 and stress incontinence in 2 cases. Dyspareunia could be explained by resultant short vagina in some cases. Moniliasis could be due to absence of protective normal secretions from uterus and cervix. In 13 cases there was slight amount of granulation tissue near the vault. Pratt (1963) reports vaginal granulations in 15-20% of cases undergoing this operation. This appears to be quite high. All other cases were completely normal. Thus follow-up study revealed that 31.3% had one or other clinical finding while 68.7% were completely normal.

Discussion

In earlier age group conservation of uterus is desirable for menstrual function. Dysfunctional uterine bleeding has remarkable tendency of spontaneous cure and hence hysterectomy should be carried out only if medical line of treatment and curettage have failed.

Uterine fibroids indicating hysterectomy can be safely tackled per vaginam provided uterus is less than 12 weeks' size, freely mobile and without adnexal pathology. There were 22 cases of uterine fibroids (3.2%) in the present series. Unhealthy cervix mimicking carcinoma, though negative on biopsy, should better be dealt with by vaginal hysterectomy in women past 40 years age.

Adenomyosis and multiple cervical polyps in elderly patients are uncommon indications for hysterectomy where choice is the vaginal route. In one case of tetanus following septic abortion hysterectomy was carried out to remove the focus of sepsis, a very common condition.

Thus any patient needing hysterectomy is as a rule subjected to the vaginal route unless indicated otherwise by special circumstances like large uterus (more than 12 weeks) with fibroids, adnexal pathology and malignancy. Anaesthesia of choice is spinal. Avoidance of clamps during operation, necessary use of blood transfusion during or after operation and prophylactic urinary antiseptics after operation are desirable and emphasised.

Summary

(1) Six hundred and eighty-seven cases of vaginal hysterectomy were studied in detail.

(2) Commonest age group and parity undergoing operation were 40

to 49 years and 5th parity respectively.

(3) Presenting complaints and associated conditions were studied.

(4) Indications are discussed at length, commonest indication being genital prolapse, while dysfunctional uterine bleeding is the next common.

(5) Anaesthesia and technique of operation are discussed. Emphasis is laid on absence of usage of clamps during operations giving various advantages.

(6) Place of blood transfusion and post-operative complications are mentioned. Plea is made to use prophylactic urinary antiseptic in cases undergoing vaginal hysterectomy.

(7) Follow-up study was possible in 220 patients, i.e. 32% of the total cases. Most of the patients had no complaint against operation. A few complained due to low general health, prolapse, dyspareunia and stress incontinence.

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