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Non-Descent Vaginal Hysterectomy – An Experience

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OBJECTIVES – To study the feasibility of performing vaginal hysterectomy in uteri without any descent. **METHODS** – All patients requiring hysterectomy with benign gynecological disorders of the uterus without descent were taken up for the study, provided the uterus was mobile, its size did not exceed 16 weeks gestational size and there was adequate vaginal access. Morcellation techniques like bisection, myomectomy, wedge debulking or combinations of these were employed in bigger size uteri. **OBSERVATIONS** – In a total of 158 hysterectomies, 50 of the 102 vaginal hysterectomies were performed on a non descent uterus, a 10-fold increase over previous year. Majority (54%) of patients were in the age group of 41 to 45 years. Fibroid was the commonest of indication (68%). Morcellation techniques were employed in 32 cases (64%). Surgery was successful in all but one. Operating time was 54.5 minutes, blood loss 290 ml (200-700 ml) and hospital stay 3 days. Complications were minimal. **CONCLUSION** – Vaginal hysterectomy for non-descent large uterus is safe and practical provided one is familiar with the morcellation techniques.

Key words : vaginal hysterectomy, nondescent vaginal hysterectomy, morcellaton

Introduction

Hysterectomy is a very frequent pregnancy unrelated surgical procedure performed in women, which may be accomplished either by abdominal or vaginal route. Laparoscopy assisted vaginal hysterectomy (LAVH), although constantly gaining ground is associated with higher costs[1] and longer duration of operation, and involves a large number of specially trained personnel[2]. With increasing concern over the containment of health care costs, there is a need for expanding the indications for performing hysterectomies via the vaginal non-laparoscopic method[3], instead of confining it to the conventional uterine descent. Usual limitation of vaginal hysterectomy in non-descent uterus is its size but now with larger sizes, hysterectomy can be facilitated by bisection, myomectomy, wedge debulking and intramyometrial coring (morcellation)[4].

Keeping in view that this approach could substantially decrease cost, duration of hospital stay and morbidity we decided to study vaginal hysterectomies in women with benign gynecological disorders, other than prolapse. Our aim was to find characteristics / indications other than prolapse, which make women suitable for vaginal hysterectomy and to explore different surgical techniques that make vaginal hysterectomy simpler and easier to perform.

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Material and Methods

All patients requiring hysterectomy for benign gynecological disorders without prolapse were studied from January to December 2002.

Prerequisites for vaginal route were: uterine size not exceeding 16 weeks of gravid uterus, adequate vagina access and uterine mobility. Benign ovarian cysts less than 8 cm in size were included. Patients with severe[1], restricted mobility, complex adenexal mass and suspicion of malignancy were excluded. Informed consents were taken.

All cases were done under regional anesthesia, either spinal or epidural. After cleaning and draping, cervix was held with volsellum. Saline infiltration was done. Circumferential incision was taken around the cervix, pubo-vesico-cervical ligament was cut and bladder pushed up. Both anterior and posterior pouches were opened. Uterosacral and cardinal ligaments were situated in close proximity to vaginal vault and were clamped, cut and ligated.

Clamping the uterine vessels was easy vaginally as its relationship to isthmus remained unchanged. The next step depended upon the size of the uterus. Uterine bisection, debulking, myomectomy or combinations of these are effective morcellation techniques, which were performed as and when required. After delivery of the uterus in the vagina, hysterectomy was completed in usual fashion. Data regarding age, parity, uterine size, uterine weight, estimated blood loss, length of operation, complications, and hospital stay were analyzed and evaluated. Vaginal hysterectomy was considered successful if it was not abandoned or converted to abdominal route.

Results

Total number of hysterectomies carried out during the year of study was 158. Abdominal route was employed in 56 and vaginal in 102. Among vaginal hysterectomies, 50 were undertaken on non-descent uteri. In comparison, 138 hysterectomies were carried out in the previous year (2001), when only 4 out of 72 vaginal hysterectomies were done on non-descent uteri (Table I).

Most of these women were in the age group of 40 to 50 years (74%) with a median age of 44 years. Seventy percent of them had parity of three or more, a favorable factor for vaginal route of surgery (Table II).

A comparative study of indications and route of surgery during the study period and during the previous year showed that vaginal hysterectomy was performed during the study period for indications for which abdominal route was preferred in the previous year. The commonest indication for surgery was uterine fibroids (34/50; 68%) followed by dysfunctional uterine bleeding (20%), adenomyosis (6%) and chronic pelvic pain (6%) (Table I). Minimal rectocele was present in five patients.

Fibroids in the vaginal hysterectomy group had sizes varying between 2 to 10 cms and were multiple with numbers varying from 2 to 8.

In 18 (36%) patients out of the 50 with non-descent uterus weight of the uterus was 200 gms or less. In the remaining 32 or 64%, uterus was bulky, weighing up to 400 gms in 29 (58%) and between 400-600 gms in 3 patients (6%).

Morcellation techniques of bisection alone (17 patients) or with either myomectomy (12 patients) or debulking

Table I. Route of hysterectomy

Surgical Indication	Hysterectomies in 2001 N=135		Hysterectomies in 2002 n=158	
	Abdominal	Vaginal	Abdominal	Vaginal
Uterine descent	-	71	-	52
Non-descent uterus	-	5	-	50
Fibroid uterus	35	2	38	34
Dysfunctional uterine bleeding	15	2	7	10
Adenomyosis	3	1	2	3
Chronic pelvic pain	3	0	4	3
Pelvic inflammating disease	6	0	5	0
Adenexal mass				
Total	62 (45%)	76 (55%)	56 (35.4%)	102 (64.6%)

Table II. Age and parity

Age (Years)	No. of Patients	Parity	No. of Patients
35 – 40	6 (12%)	1	2 (4%)
41 – 45	27 (54%)	2	12 (24%)
46 – 50	10 (20%)	3	23 (46%)
Above 50	7 (14%)	4 and above	12 (24%)

Table III. Surgical results

Parameters	
Mean operating time	54.5 minutes (range 45-150 minutes)
Mean blood loss	290 ml (range 200-700 ml)
Average hospital stay	3 days (range 3-5 days)
Complications	
Backache	1
UTI	2
Leg pain	1
Secondary hemorrhage	1
Wound Sepsis	1
Numbness in leg	1

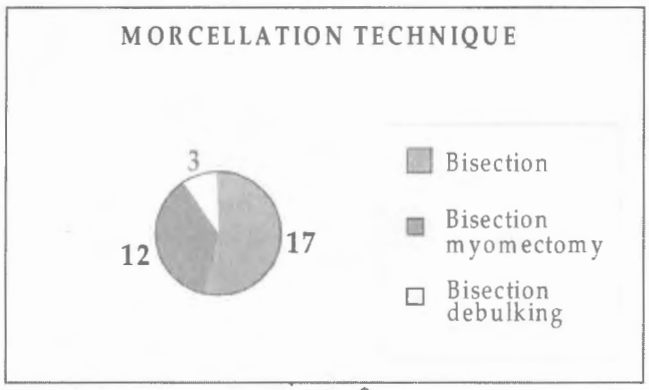

Fig.1 Morcellation technique

(3 patients) were employed in 32 patients having uterine weight of more than 200gm (Fig.1). Surgery was successful in all but one patient and could be completed in an average time of 54.5 minutes (range 45 to 150 minutes). Blood loss averaged 290 ml (200 to 700 ml) and women could be discharged in 3 days time (3 to 5 days) (Table III).

Only two patients required blood transfusion. Post-operative catheterization was not required in any case. Complications were infrequent and were mainly related to anesthesia and lithotomy position (one patient had backache, two had urinary tract infection, one had pain in the leg and one had numbness in the legs - both for a few days, one had wound sepsis, and one had secondary hemorrhage.

In one patient vaginal hysterectomy could not be completed and abdominal surgery was carried out. This woman had adenomyosis with 14 weeks size uterus and had adhesions due to endometriosis.

Discussion

It is a well-known fact that 70% to 80% of hysterectomies are performed by abdominal route and vaginal approach is usually used only in uterovaginal prolapse. The unfavorable factors for vaginal hysterectomy identified by many, are absence of significant uterovaginal prolapse, presence of uterine enlargement, and the need for oophrectomy[2].

With adequate vaginal access and technical skill, and good uterine mobility, vaginal hysterectomy can easily be achieved. The main supports of the uterus, the uterosacral and cardinal ligaments, situated in close proximity to the vaginal vault can be easily divided to produce descent. Multiparity, lax tissues due to poor involution following multiple deliveries and lesser tissue tensile strength afford a lot of comfort to vaginal surgeon even in the presence of significant uterine enlargement.

The second most important reason for the lower proportion of hysterectomies performed vaginally is the presence of uterine enlargement with leiomyomas, one of the most common indications. However, now big and bulky uteri can be dealt with by techniques like bisection, myomectomy or morcellation. In our study, 12 out of 5 or 64% of the patients without descent underwent these procedures for successful removal of the uterus. Davies et al[2] and Mazdisian et al[3] also resorted to these techniques. We could remove uteri of up to 16 weeks pregnancy size vaginally without any increase in surgical complications, blood loss, operative time or hospital stay. Similar findings are reported by Unger[4] who operated upon uteri weighing 200 to 700 gm, without any increase in complications as compared to abdominal hysterectomies. Complications in our study were minor and few. Kumar and Antony[5] successfully carried out in vaginal hysterectomies 95% (76/80) and 60 of their patients needed morcellation or hemisection or myomectomy. They consider vaginal hysterectomy safe upto 12 weeks size. Das and Sheth[6] use ultrasongraphic calculation of uterine volume for assessing the feasibility of vaginal hysterectomy. They needed debulking for uteri with a volume of more than 300cm^3.

Vaginal hysterectomy in women with non-descent and moderately enlarged uteri is safe. A combination of morcellation techniques is often needed and the surgeon needs to be familiar with them. With experience, operative time, blood loss and complications can be reduced. This technique should be practiced more frequently and there should be an active effort in residency training programmes to teach this.

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