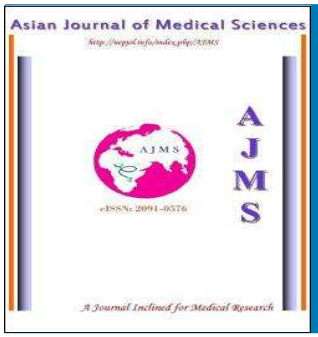

NON-DESCENT VAGINAL HYSTERECTOMY – ANALYSIS OF 100 CASES

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Soma Bandyopadhyay[1], Manidip Pal[2] 1 Associate Professor, OBGYN, Jawaharlal Nehru Institute of Medical Sciences, Porompat, Imphal, Manipur, India. 2 Associate Professor, OBGYN, College of Medicine & JNM Hospital, WBUHS, Kalyani, West Bengal, India.

CORRESPONDENCE:

Soma Bandyopadhyay
Soma Bandyopadhyay, Block - C, 2nd Floor, B/1, Tolly Twin, Kabardanga More, M.G. Road, (Near Axis Bank ATM), Kolkata - 700104, India, Ph. No - 9051783310, e-mail ID - somapb@gmail.com

"An ideal goal for a gynecologist should be to perform at least 3 out of 5 hysterectomies vaginally"

ABSTRACT

OBJECTIVE: To evaluate the feasibility of performing vaginal hysterectomy for non-prolapsed uteri as primary route.

METHODS: 100 patients planned for hysterectomy for a wide range of indications like large uterus, cervix flushed with vagina, previous pelvic surgery were chosen for vaginal hysterectomy. Prerequisite were uterine size not more than 16 weeks, adequate vaginal access and good uterine mobility. Patients with utero-vaginal prolapse, complex adnexal mass and suspected malignancy were excluded.

RESULTS: Majority were aged 35 – 45 years (77%) with 8 nullipara and 21 primipara. Commonest indication was fibroid (54%) and largest uterine size was 16 weeks. There were 79 patients with history of different pelvic surgeries. Different morcellation techniques were used in more than 10 weeks sized uteri. Adnexal surgeries were performed in 12 cases without difficulty. In uncomplicated cases average blood loss was 200 ml and operating time was 50 minutes. Most of the patients were discharged by 5th post operative day. Two patients were converted to abdominal route due to bladder injury and slippage of upper pedicle respectively.

CONCLUSION: Experience and training can lead gynecologist to consider the vaginal approach as the standard route for hysterectomy.

KEY WORDS: Hysterectomy, Vaginal, Non-prolapsed uteri

INTRODUCTION

Vaginal hysterectomy was the first minimally invasive surgical approach for benign gynecologic conditions. Recently a number of other approaches for hysterectomy have been introduced, yet when compared with vaginal hysterectomy these approaches do not offer significant benefit for similar indications[1]. Laparoscopy assisted vaginal hysterectomy (LAVH) although constantly gaining ground, is associated with higher costs, longer duration of operation and needs specially trained personnel. 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. Success rate for planned vaginal hysterectomies was 92.1% in women without previous vaginal delivery. The uterus weight limit for vaginal extraction was estimated to be 1,000 g, with a mean operating time 75 minutes and mean hospital stay 3.8 days. In fact over 9 years study period a significant decrease in laparoscopic-assisted hysterectomies and a significant increase in exclusively vaginal hysterectomies (P.001) were observed[2]. A study of hysterectomies from 1965 to 2002 at Olmsted County, Minnesota, it was found that 60% of the hysterectomies are performed by vaginal route. Hence they conclude that there is considerable scope for increasing the proportion of hysterectomies performed by the vaginal route nationwide[3].

Usual limitations of vaginal hysterectomy in non-descent uterus are enlarged uterus, previous pelvic surgeries, cervix flushed with vagina and need to perform oophorectomy. Keeping in view that this approach could substantially decrease cost, duration of hospital stays, morbidity and enhances faster convalescence we studied vaginal hysterectomies in non-prolapsed uteri as primary route of surgery.

PATIENTS AND METHODS

We have analyzed 100 patients where non-descent vaginal hysterectomy was performed for a wide range of indications like –

1. Large uterus
2. Cervix flushed with vagina
3. Previous pelvic surgery

Prerequisites for vaginal route were –

1. Uterine size not more than 16 weeks
2. Adequate vaginal access
3. Uterine mobility

Exclusion criteria were –

1. Utero-vaginal prolapse
2. Complex adnexal mass
3. Suspicion of malignancy

Exact estimation of blood loss could not be made. Approximate figure was calculated by subjective assessment of swabs, gauze pieces and amount in suction bottle. Informed consent was obtained from all patients.

RESULTS

Majority of the patients were in the age group of 35-45 years. There were 8 nullipara and 21 primipara, Commonest indication was fibroid (54%). Uterine size was 16 weeks in 4 cases. (Table 1)

TABLE-1

AGE (Years)	No. of Cases	PARITY	No. of Cases
< 35	18	0	8
35 – 40	45	1	21
41 – 45	32	2	41
46 – 50	4	3	27
> 50	1	4	3
Total	100		100
INDICATION		UTERINE SIZE (Weeks)	
Fibroid	54	< 6	12
Adenomyosis	19	6	17
DUB*	16	8	9
Cervical polyp	6	10	27
CIN II+	3	12	20
Elongation of cervix	2	14	11
		16	4
Total	100		100

* Dysfunctional uterine bleeding,
\+ Cervical intraepithelial neoplasia II

There were 22 cases of previous LSCS. In PFR cases cervix was flushed with vagina. Most of the cases up to 10 weeks size uterus did not required any morcellation technique except one case with multiple fibroid where we did wedge debulking. More than 10 weeks size uteri were delivered with the help of different morcellation techniques. There was no difficulty in performing adnexal surgeries, whenever required (12 cases). (Table 2)

TABLE-2

PREVIOUS OPERATION	No. of Cases
PFR*	3
PFR with tubectomy	1
Tubectomy	53
LSCS+	22
Total	79
TECHNIQUE USED	
Bisection	15
Myomectomy	12
Wedge debulking	9
Total	36
ASSOCIATED ADNEXAL SURGERY	
Ovarian cystectomy	3
Salpingo-oophorectomy	5
Salpingectomy	4
Total	12

* Pelvic floor repair
\+ Lower segment cesarean section

Cases where no morcellation technique used and no associated surgeries done, average blood loss was 200ml. Average operating time for uncomplicated cases was 50 minutes. (Table 3)

Most of the patients (71 %) were discharged by 5th post operative day as per the hospital protocol.

Twelve (12) cases were discharged on 3rd post operative day and 10 cases on 4th post operative day. One patient with bladder injury was discharged on 10th post operative day. Two each on 7th & 8th

TABLE-3

	Blood Loss (ml)	Operating Time (minutes)
Uncomplicated cases	200 average (150 – 250)	50
Technique used		
Bisection	350 - 400	70
Myomectomy	300 - 350	65
Wedge debulking	400 – 600	90
Previous Pelvic Surgery		
LSCS	200 – 350	70
PFR (cervix flushed with vagina)	300	120
Associated adnexal surgery		70
Complications		
Slippage of stump	700	
Bladder injury	400	

post operative day discharge were due to post operative urinary retention managed conservatively. One case each was discharged on 1st and 6th post operative day.

One previous LSCS patient had intraoperative bladder injury and hence converted to abdominal route. In another case of anterior wall subserous fibroid (about 8*5*3 cm), left upper pedicle slipped off and so rest of the operation was completed abdominally. Blood transfusion was given to 2 patients.

DISCUSSION

Vaginal hysterectomy for non descend uteri is an art as well as a challenge to the gynecologist. Day by day the previous contraindications to vaginal hysterectomy are getting waved out. Vaginal laxity, which was a prerequisite previously, is not a stringent bar these days. This can be proved by the 18 cases of less than 35 years of age and 8 cases of nullipara & 21 cases of primipara in present study.

Rather it is the adequate vaginal access which is more important. In another study 7% patients were nulliparous[4].Uterine fibroid was the commonest indication (54%), followed by adenomyosis (19%) and DUB (16%). Fibroid was commonest finding in many other studies also[5,6.] In another study DUB was highest 30%, followed by uterine fibroid 22%[7]. Thirty five (35) cases had uterine size $\geq$ 12 weeks, out of that 4 cases were 16 weeks size. Singh A & Bansal S 2006[6] reported the incidence of uterine size $\geq$ 12 weeks as 18 out of 58 cases. Purohit RK 2003 et al[7] had reported performance of vaginal hysterectomy up to 20 weeks size. In context of previous operation, LSCS was present in 22% cases and 4% cases had PFR. In literature 37%[6]-73%[4] previous pelvic surgery and 50%[4] previous CS were reported. Morcellation by different technique (bisection, myomectomy, wedge debulking) to accomplish delivery of the specimen was needed in 36 cases. Usefulness of morcellation was described in many other studies also[4,8,9,10]. Adnexal surgery was performed in 12 cases without any difficulty. In one study oophorectomy was performed in 44.7% cases of vaginal hysterectomy[11]. Evaluation of changing trend in route of hysterectomy over 5 years found that by 5th year most associated oophorectomies could be performed vaginally[12]. In uncomplicated cases blood loss was 200 ml (average). The intraoperative blood loss was 180 ml (range 50 – 1050 ml)[4], 245 ml[11], 47.85 $\pm$ 28.64 ml[6] in different studies. Mean operative time was 51 minutes (range 20 – 130 minutes) as reported by Netto OF et al 1999[4]. In other studies it was 75 minutes[13], 40.22 $\pm$ 17.03 minute[6]. In present study it ranged from 50 – 120 minutes.

As per the hospital policy vaginal hysterectomy patients were routinely discharged on 5th post operative day. Hence in present study 71% patient was discharged on 5th post operative day. In other studies most of the patients were discharged by 4th post operative day[4,6,7,13].

We also feel that these patients could be discharged routinely 1 or 2 day earlier. Bladder injury was encountered in one case. In literature 0.5 – 1.5% incidence of bladder injury was reported for vaginal hysterectomies[14]. Purohit RK 2003 et al[7] reported 1.53% bladder injury by finger dissection. Two cases were converted to abdominal route. Ajmera SK 2006[5] reported 0.7% abdominal conversion rate (1 out of 145 cases). In another study abdominal conversion rate was 3.4% (2 out of 58 cases)[6].

CONCLUSION

Vaginal hysterectomy uses natural portal vagina, so less invasive. The main support of the uterus that is the uterosacral and cardinal ligaments, situated in close proximity to the vaginal vault, can easily be divided to produce descent. Relationship of uterine vessels with isthmus remains unchanged even after enlargement of uterus making it easier to clamp it vaginally than abdominally. Enlarged uterus can be dealt with different techniques. With meticulous dissection nulliparous uterus, cervix flushed with vagina, previous pelvic surgery are no longer contraindications to vaginal hysterectomy. We feel that some of the contraindications for vaginal hysterectomy need a rethinking. An ideal goal for the gynecological surgeon should be to perform at least 3 out of 5 hysterectomies vaginally.

"Man learns as he lives and Experience is the greatest teacher in the world." –
Swami Vivekananda

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ABBREVIATION

LAVH - Laparoscopy assisted vaginal hysterectomy
LSCS – Lower Segment Cesarean Section
PFR – Pelvic Floor Repair
DUB – Dysfunctional Uterine Bleeding
CS – Cesarean Section