

Previous LSCS: NO more Contraindication for non Descent Vaginal Hysterectomy

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ABSTRACT

Introduction: Hysterectomy is the most common operation performed in Gynecology department worldwide. It is performed by different route and for different indications. NDVH has many advantages over other routes. But presence of previous lower segment cesarean section scar makes the Gynecologists hesitant to choose NDVH as route of operation. Present study aimed to study difficulty encountered and ease to overcome these difficulties while performing NDVH in previous LSCS scarred cases.

Material and methods: This prospective study was conducted over 25 cases of previous LSCS, with clear cut indication of hysterectomy between 2015 October to 2017 February. Time taken in operation, difficulties encountered during operation, any complication, their management, blood loss estimation and number of units of blood transfused required were noted.

Result: Out of 25 cases bladder was injured in one case. Laparotomy was not required in any case. Bisection only was done in 16 (64%) cases, bisection myomectomy in 5 (20%) cases, morcellation plus bisection in 4 (16%) cases. Amount of blood loss and operating time was proportional to the size of uterus.

Conclusion: Non descent vaginal hysterectomy is safe, cost effective method in previous LSCS scarred uteri where hysterectomy is indicated for different benign conditions with less morbidity and shorter hospital stay.

Keywords: Hydro-dissection, De-bulking, Bisection, Morcellation

INTRODUCTION

Non descent vaginal hysterectomy (NDVH) has made a distinct place among LAVH (laparoscopic assisted vaginal hysterectomy), TLH (total laparoscopic hysterectomy) and abdominal hysterectomy¹. Because NDVH has certain advantage over conventional abdominal hysterectomy and laparoscopic hysterectomy (TLH/LAVH) like:

- No scar, not even scar of port, removal of uteri through natural port.
- Less operative time.
- Less intra operative bleeding
- Less post operative morbidity.
- Early discharge.
- No extra setup cost, only conventional instruments are required.
- No trained assistant.
- No question of incisional hernia.

But fear of adhesion of bladder with uterus and risk of injury to bladder are two inhibitory factors for Gynaecologists in taking decision to perform NDVH in previous LSCS cases.

But, it is the demand of today to acquire expertise in this field, because hysterectomy is the second most common operation (after cesarean section) performed in the department of Obstetrics and Gynaecology. Present study aimed to study difficulty encountered and ease to overcome these difficulties while performing NDVH in previous LSCS scarred cases.

MATERIAL AND METHODS

This study was conducted between 2015 October to 2017 February in 25 patients. All had history of previous LSCS. The patients were recruited from Rajendra Institute of Medical Sciences, Seva Sadan and CIHC (Chandrama Imaging and Health care). All patients were carefully selected after taking informed consent and following ethical guidelines.

Inclusion criteria for selection of patients were

1. Size of uterus not more than 14 weeks.
2. There should be no adnexal pathology, excluded by preoperative USG (Transvaginal or Transabdominal USG as per the case).
3. Mobility of uterus should not be restricted.
4. Clear cut indication for hysterectomy for benign cause.

Exclusion Criteria

1. Size of uterus > 14 weeks.
2. Prolapse uterus
3. Inaccessible cervix.
4. Restricted mobility of uterus and cervix.
5. Adnexal pathology.
6. Genital malignancy.

Proper clinical assessment of all cases done before deciding the route of surgery like:

- a. Assessment of vaginal space: vaginal inaccessibility defined as intertuberos diameter less than 9 cm along with a subpubic angle of less than 90° and a vagina of less than two finger caliber.
- b. Accessibility of cervix: cervix should not be pulled up and fixed.

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- c. Assessment of uterine volume and mobility. Uterus which was expanded more in transverse diameter, created more difficulties while doing NDVH.

Informed consent was taken from all the patients regarding route of surgery, conversion to LAVH (Laparoscopic assisted vaginal hysterectomy) or conventional abdominal hysterectomy. Also consent was taken for risk of urinary bladder injury, although in small percentage of cases only. Demographic factors like age, parity, socio-economic status were recorded. Under anesthesia once again every case was reassessed about size, mobility, descent of uterus, depth of vaginal fornix, mobility of cervix, mobility of vaginal mucosa and vaginal accessibility. The fear of bladder injury was minimized by hydro-dissection with large amount of normal saline mixed with adrenaline (200 ml of normal saline and

one ampoule of adrenaline was mixed to make 1: 200000 solution) and "lateral window approach". This infiltration of NS (normal saline) with adrenaline, helped in reaching the exact plane between bladder and uterus and adrenaline helped in maintaining haemostasis by vasoconstriction.

Bladder was separated from uterus by sharp dissection. Whenever difficulties encountered while separating and mobilizing the bladder from uterus, posterior pouch was opened first. Cervix was held with catpaw forcep and NS with adrenaline was infiltrated both anteriorly and posteriorly. First clamp included uterosacral and mackenrolt ligament followed by opening of uterovesical pouch. Uterine arteries were included in second clamp. Last clamp included cornual structure. If decision of removal of ovary was taken then round ligament was clamped, cut and ligated first. This is followed by clamping of infubdibulopelvic ligaments. The uppermost stump was fixed to vault in all cases, which helped in suspending the apex of the vault to lateral pelvic wall. One school of thought is that this cornual stump should not be fixed to vault because it may cause chronic backache. But in our previous series of study of forty cases of NDVH, which we followed till three years following hysterectomy, such complaints were not encountered². Vault was closed by continuous interlocking suture starting from both the angles and a small gap (about 1.5 cm) was left in the middle of the vault for drainage purpose. Operating time was calculated in minutes. Estimation of blood loss was done by counting the number of mops used during surgery and amount of blood in suction bottle. Any post operative complication was noted. All cases were done with routine instruments required for vaginal hysterectomy.

Indications of NDVH	Number	Percentage
AUB	11	44%
Fibroid	7	28%
Adenomyosis	5	20%
Post-menopausal bleeding	2	8%

Table-1: Indications of NDVH

No. of previous LSCS	Total	Percentage
1	5	20%
2	18	70%
3	2	8%

Table-2: Number of previous caesarean section

Size of uterus	No. (N = 25)	Percentage
6 weeks / less	6	24%
8 weeks	7	28%
10 weeks	8	32%
12 weeks	2	8%
14 weeks	2	8%

Table-3: Size of uterus

Sr. No.	Intraoperative problem	No. (N = 25)	Percentage
1	Difficulty in opening anterior pouch	6	24%
2	Difficulty in opening posterior pouch	5	20%
3	Bladder injury	1	4%
4	Uneventful	13	52%

Table-4: Intraoperative Problems

Size of uterus in weeks	No. (N = 25)	Blood transfusion in unit	Conversion to laparotomy	Blood loss in ml	Operating time in minute
6 or less	6	Nil	Nil	72.04± 20.36	47.32±14.30
8 weeks	7	Nil	Nil	78.89±24.22	49.26±13.82
10 weeks	8	Nil	Nil	92.34±32.12	51.30±17.24
12 weeks	2	Nil	Nil	-186 ml -198 ml	- 90 min - 100 min
14 weeks	2	One unit in one case	Nil	235 ml 250 ml	-128 -136

Table-5: Size of uterus and its effect on outcome.

STATISTICAL ANALYSIS

The data was analysed statistically using the Microsoft Excel software. Descriptive statistics like mean and percentage were used to interpret data [with the help of Microsoft Office 2007].

RESULTS

In our study the patients were between the age group 38 – 50 years. Maximum patients were between the age group 46 – 50 years (60%). In our study, abnormal uterine bleeding was most common indication for hysterectomy (44%). Fibroid was indication in 28% of cases and adenomyosis in 20% of cases. Hysterectomy was performed for post-menopausal bleeding in 8% of cases (table – 1). Out of 25 cases bladder was injured in one case only while attempting to separate

and mobilize the bladder up by sharp dissection which was repaired by (2–0) polyglycolic acid through vaginal route. Decision and types of anesthesia was taken by anaesthetist. Out of 25 cases, 18 cases were done under spinal anesthesia, 5 cases under epidural anesthesia and 2 cases under general anesthesia.

The operative time and amount of blood loss were directly proportional to size of uterus (table- 5) and adhesion encountered during bladder separation. Bilateral oophorectomy was performed in 6 cases, unilateral oophorectomy in 4 cases and in rest of the cases ovaries were conserved. In our study we used different debulking techniques. “Only bisection” of uterus was performed in 16 cases, bisection myomectomy was performed in five cases and morcellation plus bisection was performed in 4 cases. All cases were discharged from hospital after 72 hrs except case of bladder injury which was discharged on 10th day of following operation with uneventful recovery. Foley’s Catheter was removed after 24 hrs in all cases except for the case of bladder injury in which it was removed on the 10th day. Injectable antibiotics were given for 48 hrs. In first 24 hrs, during post-operative period, no significant complaints were noted (complaints were mild to moderate pain, nausea and vomiting). None of the patients required opioid derivatives as pain killer. Problems within seven days were spinal headache (2 cases), reddish discharge (4 cases), fever (4 cases) and frequency of urination (2 cases). Complaint after one month was mild pain abdomen (lower side) in 3 cases. Conversion to laparotomy was not required in any case. Size of uterus and intra-operative problems encountered are depicted in table – 3 and table – 4 respectively.

DISCUSSION

NDVH has many advantages over conventional abdominal hysterectomy, LAVH and TLH (total laparoscopic hysterectomy). But this is the fact that NDVH has some limitations also. One of the important and common limitation is “cases of previous LSCS”. Cesarean section is the most common operation performed nowadays. With time, incidence of cesarean sections is increasing. So, we are getting more and more women with clear cut indications for hysterectomy and history of previous LSCS³. So, it is the demand of today that modern Gynecologists should acquire more and more expertise in performing NDVH in patients of previous LSCS. It is well known fact that vaginal hysterectomies are associated with less complications rate, rapid return of bowel peristalsis and fast recovery of patients. So, every patient should be tried for vaginal route hysterectomy unless it is contraindicated. It is preferred technique of hysterectomy nowadays⁴ because it is cost effective also. The difficulties encountered during bladder dissection were overcome by hydro-dissection and “Lateral window approach”. This approach was known for quite a long time. Usually, adhesion encountered was dense in midline and laterally we get a window from where we can proceed and mobilize the bladder because laterally mostly we find flimsy adhesion area which can be separated with

little efforts and sharp dissections⁵. One case of bladder injury was repaired vaginally with uneventful recovery. In all cases we inject methylene blue dye at the end of procedure to check the integrity of bladder. Incidence of bladder injuries while performing vaginal hysterectomies was not very high in various studies⁶. Although fear of utero-vesical adhesion and associated risk for bladder injury was reason to put the cases of previous LSCS in list of relative contraindications for vaginal hysterectomy.

The available evidences show that LAVH and TLH are more expensive with no added benefits in post-operative morbidity than NDVH.

So, out of all available options for hysterectomy, vaginal hysterectomy should be the first option if not contraindicated (whether descent present or not), nevertheless, all large scale survey have shown that 70 – 80 % of hysterectomies are performed through abdominal route⁷. Today previous LSCS, size of uterus and absence of uterine descent and need for oophorectomy are no more contraindications for vaginal hysterectomy⁸.

Bisection of uterine, coring, wedge resection, myomectomy are various steps to deal with large sized uteri. Davies et al⁹ and Mazdisnia¹⁰ described various techniques of de bulking large uteri. Volume of uterus is more important than mere size of uterus. Ultra-sonographic calculation of uterine volume was done by Sheth¹¹ for assessing the feasibility of vaginal hysterectomy. Vaginal hysterectomy in fibroid uterus was performed by Kumar and Antony¹².

CONCLUSION

As hysterectomy is the most commonly performed operation in Gynaecology, it should be performed by least invasive approach, with less complication, early recovery considerations and by cost effective method. Here our study concludes that previous LSCS is no more contraindication for NDVH.

NDVH can be performed in previous LSCS cases without much complications and difficulties by opting lateral window approach and hydro-dissection method. So, today in the era of minimal invasive surgery, every gynaecologist should master this art of doing NDVH in scarred uterus and larger uteri. Also more and more studies are required to acquire skillful art of NDVH with minimum complication rate.

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