

Giant Nabothian Cyst Mimicking a Huge Cervical Fibroid: Challenging Aspects in Laparoscopic Hysterectomy

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Abstract

Nabothian cysts (NCs) are benign cervical mucous retention cysts, which are usually considered insignificant. A 45 years para 2, presented with lower abdominal heaviness, abnormal uterine bleeding and severe dysmenorrhea for 1 year. On examination, only a part of the anterior cervical lip was visible, and a tense bulging cyst was replacing the posterior lip. The cyst extended supravaginally and filled the posterior fornix. Magnetic resonance imaging suggested a 15 cm × 10 cm huge NC. Laparoscopic hysterectomy was done. There were difficulties in bladder dissection, ureteric identification, and vault delineation. The cyst contained 800 ml of clear fluid with a few milliliters of yellowish mucinous fluid. To our knowledge, NC of this size has not been reported in the literature. NCs are benign lesions, but they have to be differentiated from other cervical cysts - particularly malignant or premalignant lesions. NC can very well be managed laparoscopically, provided the skills of precise dissection are possessed by the surgeon

Keywords: Cervical cysts, hysterectomy, laparoscopy, nabothian cyst

INTRODUCTION

Nabothian cysts (NCs) are benign cervical cysts, which result from blockage of an endocervical gland. It is a mucous retention cyst. They are caused due to a chronic inflammatory process, which occurs due to any minor trauma or due to childbirth. NCs are generally considered clinically insignificant. These cysts rarely exceed 1 cm. Usually, these are asymptomatic; they usually rupture after a certain size. We present a case of huge NC with severe dysmenorrhea, for whom a laparoscopic hysterectomy was performed.

CASE REPORT

A 45-year-old para 2, previous two cesarean sections, with no other medical comorbidity, presented with lower abdominal heaviness, abnormal uterine bleeding (AUB) and severe dysmenorrhea for the past 1 year. On per speculum examination, only a small portion of the anterior lip of the

cervix was visible and was looking normal. On per vaginal examination, a bulging tense cystic lesion was palpable in the posterior cervical lip, which was extending supravaginally and filling the posterior fornix. It mimicked the feel of bulging membranes with full cervical dilatation in a term fetus. The extent resembled that of a cervical fibroid, except for the tense cystic consistency. Ultrasonography (USG) suggested a right ovarian cyst; magnetic resonance imaging (MRI) was done to look for any cervical lesion as there was a mismatch between the clinical findings and the USG. MRI showed a huge NC of size 15 cm × 10 cm. Her cancer antigen-125 levels were normal. Cervical cytology was negative for malignancy. Endometrial scraping showed proliferative phase endometrium.

Laparoscopic hysterectomy was done by an experienced endogynecologist. The uterus was bulky and pushed cranially

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and to the left by a huge cervical cyst of 15 cm × 10 cm, which was tense, glistening, and stretching the surrounding visceral peritoneum [Figure 1].

Challenging aspects of the surgery

1. Bladder was drawn up and was densely adherent to the previous Lower Segment Cesarean Section (LSCS) scar. Unlike a cervical fibroid, wherein there is a distinct difference in consistency between the bladder and the cervix, separating the cyst from the bladder was not an easy task, because both the structures had the same consistency and the cyst was yielding to the dissection forces. The cesarean scar adhesion added to the difficulty at this level. Retrograde filling of the bladder was done, to aid the dissection
2. Identification of the ureteric course was important, as the ureters were pushed laterally and stretched on the lateral surface of the cyst. Prophylactic ureteric stenting was not done, as it would make the ureter nonpliable and more prone to injury
3. Identification of the vaginal fornix for vault incision was difficult as the cyst was stretching the planes. Hence, at this point, the cyst was decompressed with a laparoscopic needle, without any peritoneal contamination. Around 800 ml of clear serous fluid was aspirated along with a few milliliters of yellowish mucinous fluid. The rent was sutured with 2-0 vicryl.

Hysterectomy was completed uneventfully; the specimen was examined, which showed that except for the distal 1 cm of the anterior cervical lip, the entire cervix was replaced by a huge unilocular cyst. The inner walls of the cyst were smooth, with no septations or solid areas. HPE suggested a benign NC.

DISCUSSION

NC is usually asymptomatic, but with this huge size, it is practical that there was lower abdominal heaviness for our patient associated with an obstructive dysmenorrhea. As with any huge pelvic mass, congestion would have led to the heavy menstrual bleeding. Case reports from across the globe have shown NC with chronic urinary retention,^[1] presenting as genitourinary fistula,^[2] uterine obstruction,^[3] AS chronic pelvic pain,^[4] rectal pressure,^[5] nulliparous

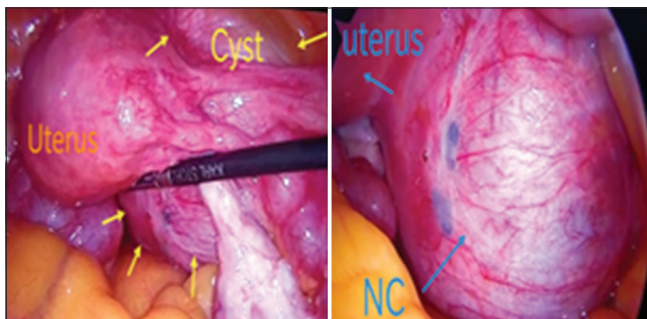


Figure 1: Intraoperative picture of nabothian cyst

prolapse,^[6] obstructed labor,^[7] and heavy sudden bleeding episodes.^[8] Our case is the first with such a huge size of NC, with abdominal heaviness, AUB, and dysmenorrhea. Our report will be of great aid for surgeons in managing these cases laparoscopically.

It is important to rule out NC from other malignant or premalignant lesions. Ando *et al.*^[9] have studied 94 cases with multicystic appearance of the cervix, and of them, 10.6% had minimal deviation adenocarcinoma (MDA), 62.7% showed lobular endocervical glandular hyperplasia (LEGH), and only 26.5% had benign NC. On MRI, MDA showed a solid or invasive pattern, LEGH showed cosmos pattern (microcystic glands surrounded by medium to large cysts) or microcystic pattern (aggregation of small cysts without peripheral large cysts - which may also be malignant), and NCs showed coarse cystic pattern, with irregular medium to large cysts, without solid or invasion pattern. All of the cases presented with excessive watery discharge. MDA usually has a normal cytology, hence it is better to do a colposcopy in patients with suspicious cervical cysts. It would be wise to go with an MRI to be more precise with our diagnosis. The differentiation is crucial because NC is benign, whereas LEGH, though benign, may be a precursor of MDA. Furthermore, 5%–10% of LEGH cases already had progressed to malignancy in their study.

An increase in the size of the cysts and appearance of malignant cells in the pap smear are early signs of progression from LEGH to MDA. In a poor-resource setting, follow-up with an ultrasound is important. If surgery is planned, the modality ranges from conization, simple hysterectomy, or radical hysterectomy.

The other differential diagnosis includes cystic degeneration of leiomyoma and cervical ectopic and requires management accordingly.

CONCLUSION

NCs can also grow to huge sizes and should always be considered while handling pelvic cysts. MRI is the mainstay of preoperative diagnosis. Laparoscopic management is feasible, provided there is no suspicion of malignancy. Laparoscopic hysterectomy is safe in expert hands. The surgeon should be aware of the possible injury to the ureter and bladder.

Ethical approval

This study was approved by the Research Ethics Committee of GEM Hospital & Research Center (approved number: GEMREC 21012020).

Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form, the patient has given

her consent for images and other clinical information to be reported in the journal. The patient understands that name and initials will not be published and due efforts will be made to conceal identity, but anonymity cannot be guaranteed.

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Conflicts of interest

There are no conflicts of interest.

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