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Case Report

A rare case of Nabothian cyst presenting as mass per vagina

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ABSTRACT

Nabothian cysts are benign non neoplastic disorder rarely of any clinical significance usually appear as bumps on the surface of the cervix which may be single or in groups and they appear as a sequalae to chronic cervicitis, are asymptomatic unless they are sizeable presenting with rare and varied symptoms. Generally, Nabothian cysts do not require any therapy. The therapy is recommended when a patient becomes symptomatic with pain or when the lesion character is not clear and malignancy cannot be ruled out. Here we reported a case of 23-year young unmarried girl nulligravida with complaints of mass per vagina. On local examination an irregular polypoidal mass was seen protruding outside the introitus measuring about 4×4 cm soft to cystic in consistency. Ultrasound revealed a well-defined anechoic cyst of 3.6×5.7 cm noted in the right ovary with no evidence of internal septation/solid component and wall calcification suggestive of right ovarian simple cyst with left ovary and uterus being normal. Surgical management was planned. Diagnostic laparoscopy was performed which revealed right ovarian simple cyst of 6×4 cm which was punctured using cautery and drained. Following this vaginal exploration revealed a polypoidal structure of 5×4 cm cystic consistency seen arising from right upper anterolateral lip of cervix. Polyp was resected with cautery and haemostasis achieved. Post operative period was uneventful. Such rare presentations do pose a diagnostic dilemma and hence it should be kept in mind to ensure adequate treatment.

Keywords: Nulligravida, Nabothian cyst, Mass per vagina

INTRODUCTION

Nabothian cysts are the retention cysts in the cervix. They are common, non-neoplastic gynaecologic disorder and rarely of any clinical significance. Nabothian cysts appear as firm bumps on the surface of cervix which may be single or in groups. Nabothian cysts are usually associated with chronic cervicitis, an inflammatory condition of cervix, and are harmless and usually disappear on their own. They are usually asymptomatic unless they are sizeable in which case they may present with a range of diverse and unique symptoms. They are usually accidentally detected; some reports suggest that they may be seen in up to 12% of routine pelvic MRI scans.[1]

CASE REPORT

A 23-year young unmarried girl presented to the outpatient department with complaint of mass per vagina noticed since 4 days. There were no urinary or bowel complaints, chronic cough, constipation, heavy weight lifting, pain abdomen, bleeding per vagina or white discharge per vagina. Her previous menstrual cycles were regular with no menstrual complaints. She had no significant past medical or surgical illness and no family history of similar problem. On examination, she was moderately built and nourished with normal body mass index and vitals. Systemic examination was unremarkable. On local examination an irregular mass was seen protruding outside the introitus measuring about 4×4 cm soft to cystic in consistency.

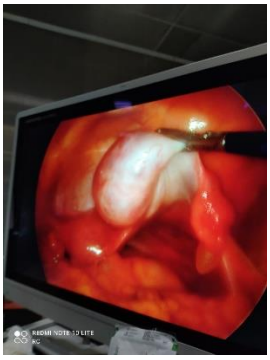

Figure 1: Laparoscopic image of right ovarian simple cyst.

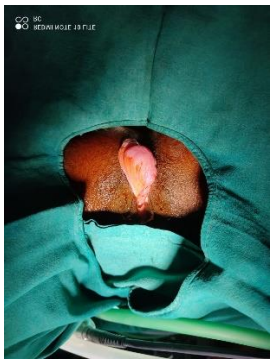

Figure 2: Polypoidal structure protruding outside the introitus.

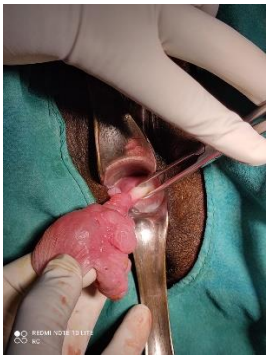

Figure 3: Mass seen arising from the right upper anterolateral lip of cervix.

Her blood investigations were within the normal range including complete blood count, renal and liver functions tests. Electrocardiogram and X-ray findings were normal. Ultrasound revealed a well-defined anechoic cyst of 3.6×5.7 cm noted in the right ovary with no evidence of internal septation, solid component/wall calcification suggestive of right ovarian simple cyst with uterus and left ovary was normal.

The patient was planned for surgical management. Pre-operative investigations were normal. Anaesthetic clearance was obtained for surgery. Diagnostic laparoscopy was performed which revealed right ovarian simple cyst of 6×4 cm which was punctured using cautery and drained (Figure 1). Uterus, left ovary and fallopian tubes were normal. Following this vaginal exploration was done which revealed a polypoidal structure of 5×4 cm and cystic in consistency seen arising from right upper anterolateral lip of cervix (Figure 2 and 3). Polyp was resected with cautery and haemostasis achieved. Post operative period was unremarkable. The cyst and the contents were sent for histopathological examination and was reported as, tissue lined by stratified squamous keratinising epithelium with underlying cystic lesion lined by columnar epithelium features suggestive of degenerated Nabothian cyst.

DISCUSSION

Nabothian cysts are common gynecologic findings and rarely of any clinical significance. The squamocolumnar junction of the cervix is not a static tissue; the squamous epithelium of the ectocervix proliferates and covers the columnar epithelium of the endocervical glands. The glandular epithelium consists of numerous ridges and clefts when covered by squamous metaplasia, leads to the appearance of gland openings. Nabothian cyst is formed when a cleft of columnar epithelium becomes covered with squamous cells and the columnar cells continue to secrete mucoid material.[2]

Nabothian cysts are usually associated with an inflammatory condition like as chronic cervicitis and may also occur after childbirth or minor trauma. Cervicitis is a frequently asymptomatic, inflammatory condition of the cervix. It is common with rates as high as 30-45% in some STI clinic populations and is generally considered to be associated with sexually transmissible pathogens. However, *Chlamydia* and *Neisseria gonorrhoea* account for less than half of cervicitis cases, with a largely undefined aetiology in the remainder, referred to as non-chlamydial, nongonococcal cervicitis or nonspecific cervicitis (NSC).

As a sequalae of cervicitis the squamous epithelium of the uterine cervix proliferated, covering the columnar epithelium of the endocervical glands; this took place when it got chronically inflamed as a result of the healing process of chronic cervicitis, or as part of the physiological metaplasia which was unlikely in a patient who hadn't had any exposure to sexual activity and hence caused a diagnostic dilemma in our patient.

Nabothian cysts appear translucent or opaque, single or multiple, and vary in size from a few mm to 3 to 4 cm in diameter, and the average diameter is 13 mm.[3]

They are usually asymptomatic unless they are sizeable and present with secondary symptoms like in this case. Most cases are detected accidentally, during pelvic examinations & ultrasound. However, larger cysts can block the cervical opening and cause irregular bleeding as well as vaginal discharge. Nabothian cysts may rarely

present as genital prolapse, chronic urinary retention as reported by Wu et al hematometra, lump in the abdomen, discharge per vagina because of multiple Nabothian cysts reported by Kanan et al and also mass per vagina mimicking a polyp reported by Aruna et al as seen in this case.[4,5]

A large Nabothian cyst can also present as a case of chronic pelvic pain with radiation pain to the leg as was reported by Kim et al.[6]

Aruna et al reported a case of large Nabothian cyst presenting as nulliparous prolapse due to the weight of the cyst, a second-degree cervical descent was noted, for which a cystectomy was performed successfully. Here a 21-years-old unmarried nulliparous female presented with complaints of something coming out of vagina for 8 years associated with discharge per vaginum. Local genital examination revealed third-degree cervical descent manifesting as a cystic swelling protruding through the introitus. External os was compressed and deviated to one side due to swelling. Swelling was cystic and reducible. The pelvic examination revealed normal-sized uterus and bilateral adnexa as in our case as well where the patient presented with similar complaints where in nulliparous prolapse was considered as one of the differential diagnosis.[7]

Haitham et al reported a case of 44-year-old presenting with recurrent attacks of lower abdominal pain and a year of amenorrhea not suggestive of pregnancy or menopause, on examination it was discovered to be a large 6.4×6.3 cm mass arising from the cervix which was excised. On histopathological examination, it was revealed to be a Nabothian cyst causing the above symptoms.[8]

Cystic lesions of uterine cervix need to be differentiated from benign condition such as Nabothian cyst, cystic cervicitis, and cervical endometriosis from malignancy because there are different treatment principles and prognosis. Large-sized nabothian cysts can be especially mistaken with malignancy, including mucin producing tumor such as cervical adenoma malignum. Cervical adenoma malignum which is a rare subtype of cervical adenocarcinoma often appears as multiple cystic lesions which mimic multiple Nabothian cysts.[9,10] The major symptoms of adenoma malignum are profuse watery or mucoid vaginal discharge and irregular bleeding.[11]

On MRI, cervical adenoma malignum is characterized by multiple cysts with solid enhancing components which is different finding from nabothian cysts.[12] The MRI finding of a Nabothian cyst is a round or oval cyst without enhancement after intravenous gadolinium.[13] However, making a specific diagnosis is difficult because both of them are usually hyperintense on T2-weighted images. Therefore, the diagnosis should be confirmed on cervical biopsy.[1,14]

Transvaginal ultrasonography and magnetic resonance imaging are the most useful imaging modalities for cervical cystic lesions.[15]

Neel et al reported a case of two large nabothian cysts of 5.3×3.4 cm and 6.3×4.5 cm in the anterior and posterior cervical lips respectively on MRI in a patient undergoing routine screening for hepatocellular carcinoma. These cysts despite being large were surprisingly asymptomatic. This case emphasized the efficacy of MRI as a tool for diagnosis of pelvic masses when ultrasound and CT findings were equivocal.[16]

Generally, Nabothian cysts do not require any therapy. The therapy is recommended only when a patient becomes symptomatic with pain or when the lesion character is not clear and malignancy cannot be ruled out. When necessary cryocautery, electrocautery, cyst excision can be done. In rare cases hysterectomy may be needed.

CONCLUSION

Nabothian cysts are common lesions of uterine cervix and are usually of no clinical significance. They are only a few mm in diameter and although they may cause enlargement of cervix, the vast majority are asymptomatic. They may have various rare presentations as seen in this case which may pose a diagnostic dilemma. Therefore, the classical cases of Nabothian cysts do not require any treatment. However, a symptomatic Nabothian cyst should be considered with a surgical approach after thorough evaluation and ruling out all possible differential diagnosis and confirmed by histopathology as malignancy may be missed. In conclusion, it should be kept in mind the uncommon presentations of Nabothian cyst and must be thought of when posed with such symptoms to ensure adequate treatment.

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