



Research Article

AN UNUSUAL & RARE CASE OF CERVICAL MESONEPHRIC REMNANTS HYPERPLASIA

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ABSTRACT

Uterine cervical mesonephric remnant hyperplasia is a rare but well established entity that involves the deep layer of the antero-lateral wall of cervix along the path of the mesonephric ducts. Herein we report a case of cystic hyperplasia of mesonephric duct remnants forming 3x2 cm cystic lesion which posed a diagnostic dilemma, as the possibility of malignancy could not be ruled out firstly due to its thick walls & deeply invading the cervix and secondly, the frozen section revealed inconclusive report.

Key words:

Mesonephric Remnants,
wolffian duct, benign lesion

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INTRODUCTION

Remnants Hyperplasia of Uterine Cervix refers to a benign and abnormal growth of mesonephric duct remnants within the cervix. Mesonephric or Wolffian ducts are the embryonic structures that form the male internal genitalia. These ducts develop in both the male and female embryo, However in the female they subsequently regress, whereas in the male they are stabilised by testosterone. At times, there can be hyperplasia of mesonephric duct remnants that can be recognized incidentally as neoplasm in the lateral walls of the uterine cervix, vagina and adnexa along the path of the mesonephric ducts¹. Mesonephric duct remnants Hyperplasia (MH) was first described by Meyer in 1907 and is characterized by increase in lobule size with extensive involvement of the cervix²

Generally MH is asymptomatic and are incidentally discovered, rarely it can present as an area of induration, nodularity or cystic mass as large as 2.5 cm causing an expansion of uterine or cervical walls³

Lesions derived from the remnants of the mesonephric duct often cause diagnostic dilemma and challenges, as it is a benign condition that needs to be distinguished from mesonephric duct carcinoma and endocervical adenocarcinoma.

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We herein report a case of least common type of cystic hyperplasia of Mesonephric duct remnants that mimicked cervical adenocarcinoma and posed a dilemma at its management.

Case Presentation

A 40 yrs old P3L3 presented to our Hospital with complaints of abnormal Uterine bleeding and dysmenorrhea since 2 years. She had undergone dilatation and curettage one year back but histopathological report was not available. Patient had received various hormonal tablets and injections since 2 years and mirena was inserted last year in March 2017, but was eventually expelled after one month. There was no significant past or family history. On examination moderate pallor was present, pulse rate was 96 beats/min, BP 128/76 mmHg, thyroid & breast normal, cardio-respiratory system was also normal. Per abdomen examination was normal with no organomegaly, Per speculum finding showed hypertrophied cervix with multiple neobothian follicles, PV revealed 6-8 weeks sized globular uterus, barrel shaped cervix, mobile all fornices free and mild tenderness was present in lateral fornices. Investigations were done, Hb – 8 gm%, LFT/KFT/TFT were normal. TVS showed large neobothian cyst in lateral aspect of the cervix (Fig 1)

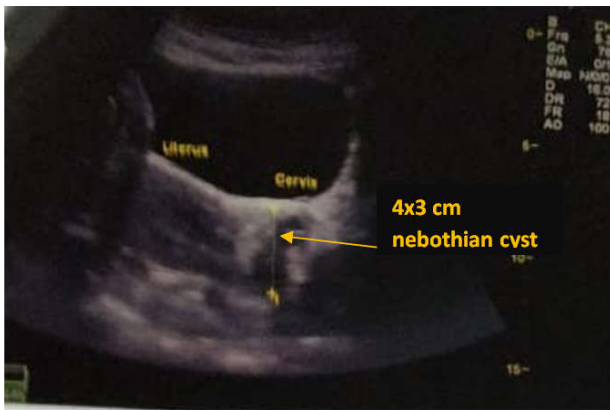


Fig 1 TVS showing large neobothian cyst

She underwent Diagnostic hysteroscopy, which was normal & endometrial tissue histopathology showed secretory endometrium.

Patient was then undertaken for Total Laparoscopic Hysterectomy & bilateral salpingectomy. Intraoperative findings revealed 8 weeks size uterus, both tubes and ovaries were normal and sigmoid colon was densely adherent to the right side uterosacral. As the bowel was being dissected off the uterosacrals, swelling 3x2 cm in the right lateral aspect of cervix was seen and also 1ml of clear fluid leaked from it. Ureters were explored and hysterectomy was completed.

Cut section showed 3x2 cm cystic lesion penetrating deep inside the cervix stroma, thereby creating a tunnel within it (Fig 2,3).



Fig 2 cystic lesion 3x2 cm on right lateral aspect of cervix



Fig 3 cystic lesion penetrating deep inside cervical stroma

On the basis of Ultrasound finding of neobothian cyst and cut section showing above mentioned features, Probable diagnosis of Tunnel cluster, which is a type of nabothian cyst characterized by complex cystic dilatation of the endocervical gland was considered. But since the cyst walls were thickened and it was deeply infiltrating cervix, there was a suspicion of malignancy also. Frozen section revealed the presence of flattened columnar cells with? clustered atypical cells, possibility of malignancy could not be ruled out. There was a dilemma as to proceed to radical hysterectomy with lymphadenectomy or not, however with doubtful diagnosis we did not proceed and closed the abdomen. Postoperative period was uneventful and the Patient was discharged on the 2nd day with strict instructions to be followed up with HPE report after 5 days.

Histopathological report showed: Gross section – 3x2 cms smooth & thick walled cyst in anterior-lateral wall of the cervix, which is insame location as mullerian duct. Microscopic findings were - Small tubules lined by low to flattened columnar cells without cilia and surrounded by prominent smooth muscles with no atypical cells in the field (Fig 4,5). This was suggestive of cystic hyperplasia of mullerian duct remnants.

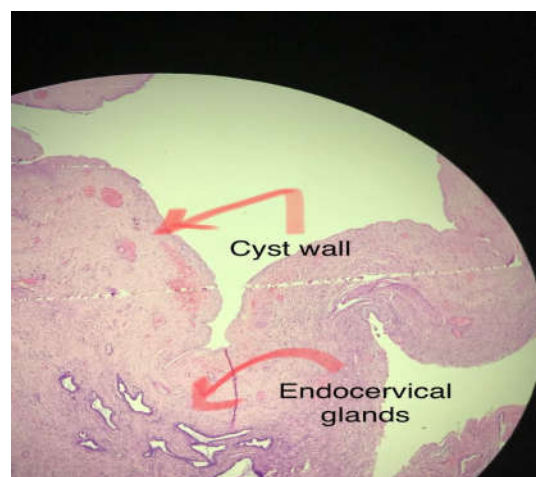


Fig 4,5 Microscopic findings suggestive of cysticMullerian duct remnants hyperplasia

Immunohistochemistry CD10 +ve and Calretinin -ve confirmed the diagnosis of benign nature of mullerian duct remnant cystic hyperplasia and excluded mullerian duct malignancy.

DISCUSSION

Uterine cervical mesonephric hyperplasia (MH), is a rare but well established entity that involves the deep layer of the cervical wall and also extends close to the luminal surface intermingled with pre-existing endocervical glands. It comprises up to 20% of all the cervical specimens and can occur anywhere in pelvic cavity, including broad ligament, cervix (20% of women), fallopian tube, lymph nodes, ovary⁴. It is a benign proliferation of mesonephric duct remnants, occurring at 28 – 47 years (mean age 38 – 47 years).

MH is classified on the basis of histopathology, lobular MH is the most common type which is characterized by a lobular arrangement of clustered, small to medium-sized and round, mesonephric tubules filled with periodic acid-Schiff (PAS)-positive eosinophilic to pink amorphous materials, often arising deeper in the cervical stroma and separated by variable amounts of stroma. The less common type is called the diffuse MH, characterized predominantly by a non-clustered, extensive and diffuse proliferation of mesonephric tubules separated by varying amounts of cervical stroma, coexisted occasionally with minor foci of the lobular MH. Finally the least common type of MH is the duct MH, composed of one or more ducts lined by hyperplastic appearing epithelium without atypia, usually lacking the intraluminal eosinophilic/pink secretions and often displaying clefted contours.

Mesonephric Remnants Hyperplasia of Uterine Cervix are usually asymptomatic but in rare occasions it can present as mass or cause vaginal bleeding or malignancy⁶. The exact reason for MH is unknown.

Treatment course may include a ‘wait and watch’ approach or surgical intervention. In general, the prognosis of Mesonephric Remnants Hyperplasia of Uterine Cervix is excellent with adequate treatment. Rarely, a mesonephric carcinoma can arise within hyperplastic remnants and the diagnosis of malignancy is based on the infiltrative and confluent pattern of growth, along with the presence of a cervical mass or barrel-shaped cervix.

Mesonephric remnants hyperplasia is confirmed by histopathological examination by the presence of Small tubules lined by low to flattened columnar cells without cilia and surrounded by prominent smooth muscles. Positive immunostaining for CD10 is helpful in proving their mesonephric origin while calretinin & CEA negative is confirmatory for their benign nature⁷(Fig 6)

Table 1 Immunostaining of Differential diagnosis

Immunostaining	Mesonephric Remnant hyperplasia	Mesonephric Adenocarcinoma	Endocervical Adenocarcinoma
Calretinin	-	+	-
mCEA	-	-	+
CD10	+	+	-

CONCLUSION

Mesonephric remnants hyperplasia is the benign lesion occurring anywhere in the deep layers of pelvic cavity, along the path of the mesonephric ducts. It can lead to barrel shaped cervix due to its widely infiltrative growth potential and mimicks adenocarcinoma of cervix. Mesonephric adenocarcinoma of the cervix, although rare may also arise from remnants of the mesonephric duct in the lateral wall of the cervix. Histopathological examination and Immunostaining both are necessary to confirm benign or malignant nature of the cyst.

Recommendations

We recommend that immunostaining CD10, Calretinin and mCEA should always be done for deep infiltrating lesions of the cervix, so that unnecessary radical surgery can be avoided in such benign lesions.

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