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Case Report

Nodule in mesosalphinx: a rare microscopic finding

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ABSTRACT

Ectopic adrenal cortical rests are uncommon in adults, particularly in females. Their occurrence in fallopian tubes or mesosalphinx is extremely rare. Herein, we report a rare occurance of ectopic adrenal cortical rests in mesosalphinx which was diagnosed on histopathological examination. To the best of our knowledge, there are less than five previously published cases at this rare location and the present report is the second case from India. A 46-year-old female who underwent hysterectomy for fibroids was incidentally detected with ectopic adrenal cortical rests in the mesosalphinx on histopathology. The present case is reported to increase the awareness of this unique finding at this rare location, its implications and histopathological diagnosis.

Keywords: Ectopic, Adrenal cortical, Fallopian tube, Mesosalphinx

INTRODUCTION

Ectopic of adrenal glands are mostly reported in pelvic structures in children and usually in male genitourinary system. Infrequently they may persist in adults. There occurrence in female genital system particularly in there are less than five previously published cases at this rare location the fallopian tubal and paratubal location is extremely rare.[1,2] We present an extremely unique site of adrenal cortical rest within the wall of fallopian tube in a 46-year-old female who underwent hysterectomy for abnormal uterine bleeding. The adrenal rest was found incidentally in the routine histopathological sections taken for evaluation of the fallopian tube.

CASE REPORT

A 46 years old female patient, gravid 2, para 2 presented in the gynaecology OPD with complaints of heavy menstrual bleeding with clots for the last 4 months. On examination, her vital parameters were within normal limits. Routine biochemical and haematological findings were normal. Per vaginal examination was normal. Ultrasound showed presence of multiple uterine fibroids. Endometrial and cervical biopsy showed secretory phase endometrium and chronic cervicitis Liquid based cytology was normal. Patient underwent laparoscopic total hysterectomy with bilateral salpingo-oophorectomy for uterine fibroids. Per operatively, the uterus was bulky, irregularly enlarged to 20 weeks size with multiple fibroids. Grossly, the hysterectomy consisted of multiple morcellated tissue pieces. The fibroids were grey white and whorled. One of the ovaries showed a small cyst 1.5 cm in diameter. Cervix, other side ovary and bilateral fallopian tubes were grossly normal (Figure 1). On microscopic examination, the uterus showed benign endometrium and multiple leiomyomas. Cervix showed chronic cervicitis. One side of the ovary showed hemorrhagic corpus luteum and the other side of the ovary showed follicular cyst. One fallopian tube was normal. Section from the other side of the fallopian tube showed a small circumscribed nodule in the mesosalphinx located between the muscular and serosal layers. It was composed of broad bands of larger vacuolated lipid-rich cell population corresponding to zona fasciculata admixed with a population of small clusters and trabeculae of smaller eosinophilic to amphophilic lipid poor cells resembling zona glomerulosa No medullary tissue was identified (Figure 2 A and B). On immunohistochemistry, the nodule was positive for inhibin, synaptophysin and

Melan A (Figure 2 C and D). It was negative for CD10 and chromogranin. The morphological and immunohistochemistry findings were consistent with adrenocortical rest in mesosalphinx. The gross specimen was reviewed; however, no lesion was macroscopically visible. Serum hormone studies done subsequently were normal and history did not reveal any hormonal disturbances. The patient had an uneventful post-operative recovery and was well at the end of three month postoperative follow up.

Figure 1: Grossly hysterectomy specimen showing fibroids. One of the ovaries showed a small cyst Cervix, the other side ovary and bilateral fallopian tubes (arrow) are normal.

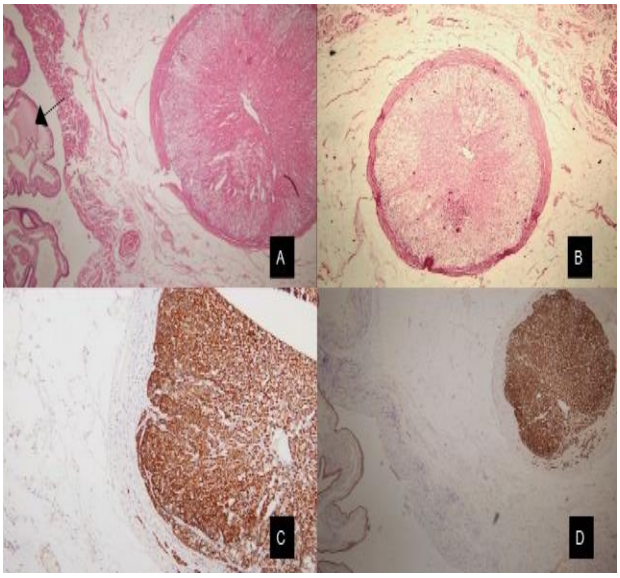

Figure 2 (A-D): Microscopy shows a circumscribed nodule in mesosalphinx. Fallopian tube is seen on the left (arrow) (H and E, 10x). Nodule is composed of broad bands of large vacuolated cells (H and E, 20x), diffuse positivity on immunohistochemistry for inhibin (IHC, 10x). Melan A is positive (IHC, 20x).

DISCUSSION

Adrenal gland rests occur mostly in newborns and usually regress and disappear by adulthood. They are found usually along the path of embryonic migration chiefly along the genital tract in testis, paratesticular tissue and spermatic cord. They can be uncommonly present in the female genital tract with the most common location being the broad ligament. Occurrence in fallopian tube or mesosalpinx is extremely rare. They are usually small and most often detected incidentally. Histopathologically, they appear as circumscribed nodules of adrenal cortical tissue without medullary tissue. Pathological differentials chiefly include metastatic renal cell carcinoma, Walthard rests and sex cord stromal tumors with lipid cells like cells like Leydig cell tumors, luteinized theca tumors, steroid cell tumors and immunohistochemistry helps in confirming the diagnosis.[3] They are typically positive for inhibin, synaptophysin and melan A and negative for CD10, PAX8 and chromogranin.[5] Renal cell carcinomas are positive for PAX8 and CD10 and are negative for inhibin and synaptophysin.[3] Sex cord stromal tumors are also positive for inhibin and melan A but occur as ovarian masses and are negative for synaptophysin. The adrenal cortical rests are chiefly small and asymptomatic with no significant clinical implications.[4] However, they can rarely become functional or malignant.[5] In view of the rarity at this site, clinicopathological information is limited. One of the previous cases was associated with ectopic pregnancy.[1] Another case of tubal occurrence was associated with mucinous cystadenoma ovary.[6] In the present case no abnormality was found in tubes or ovaries. Awareness of the occurrence of adrenal rests at this unusual location is important for both gynaecologists and pathologists for their clinical implications and diagnostic difficulties.

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