



Case report

ADENOMATOID TUMOR OF THE FALLOPIAN TUBE – A RARE CASE REPORT AND REVIEW OF LITERATURE.

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Abstract

Adenomatoid tumor is the most common benign tumor of the fallopian tube. We report a case of 27 year old woman who was operated for right lower quadrant pain and vaginal discharge. The right tubal segment was occluded at the fimbriated end, with a well circumscribed nodule. Microscopy showed closely packed tubulo-glandular and duct like spaces lined by cuboidal to flattened tumor cells, confirming the diagnosis of adenomatoid tumor.

Keywords: Adenomatoid tumor, Benign neoplasm, Fallopian tube.

INTRODUCTION

A 27 year old Para1 Live1 female presented with pain in the right lower quadrant and vaginal discharge. Tubectomy was performed and the specimen was sent for histopathology examination. On gross examination the right tubal segment with an occluded fimbriated end revealed a well circumscribed nodule measuring two cms in diameter lying beneath the serosa. Cut surface was smooth, gray white and homogenous. (Fig 1A,B). Microscopy of the tubal lesion showed a tumor composed of closely packed tubulo-glandular and duct like spaces that are elongated to cystically dilated with oval vacuoles around the lumen of the fallopian tube. These spaces are lined by tumor cells which are cuboidal to flattened with bland nuclei and mitosis is absent. The stroma is sparsely cellular (Fig 2A,B). A diagnosis of adenomatoid tumor of the fallopian tube was made.



DISCUSSION

The benign well circumscribed lesions of the genital tract which have an adenomatous structure were termed as “adenomatoid tumor” by Golden and Ash.¹ In female, adenomatoid tumor is a rare benign genital tract neoplasm and is usually an incidental finding occurring in the fallopian tube, uterine fundus and rarely in the ovary.² These tumors are typically less than two cm in diameter and are circumscribed, firm, gray white and rarely bilateral.³ On microscopy, these tumors have different basic patterns ranging from plexiform, tubular and canalicular, which may be mixed within a single tumor. Additional features include intraluminal desquamation of tumor cells, variable lymphocytic infiltrate which may form prominent follicles and an infiltrating tumor margin.

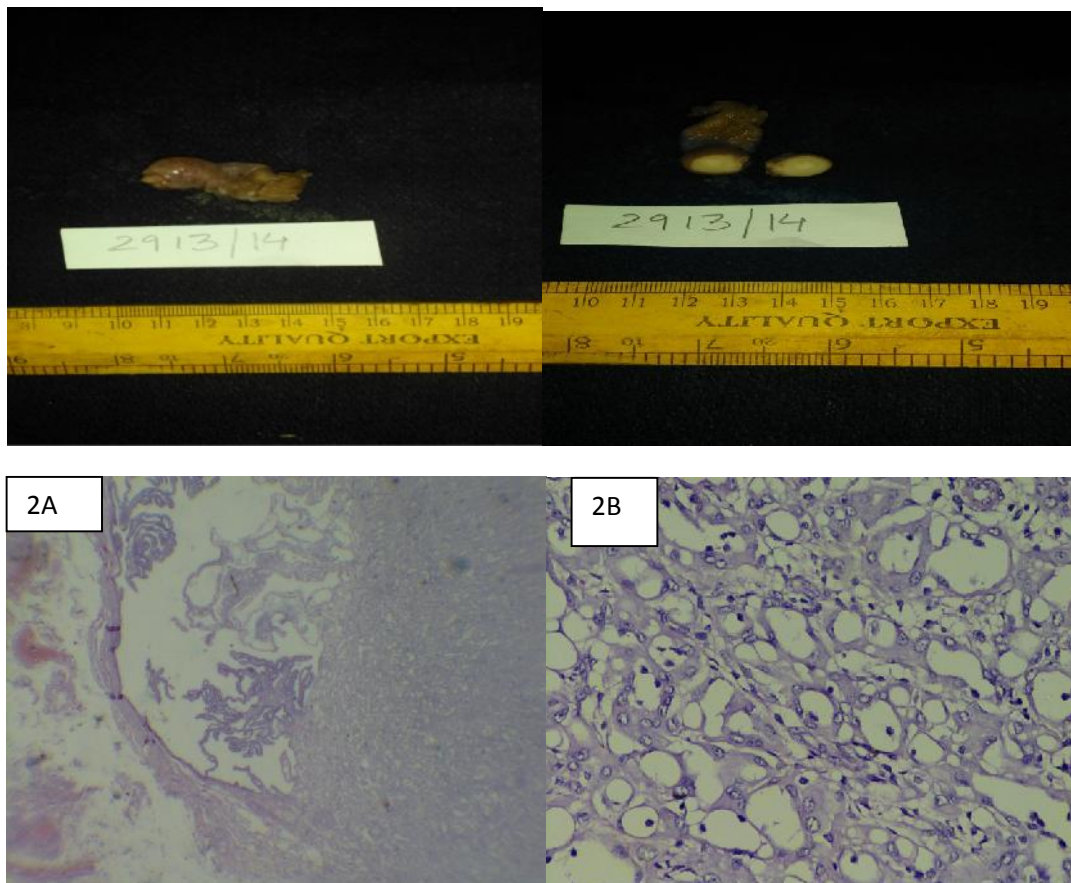


Fig 1A- Right tubal segment with an occluded fimbriated end.

Fig 1B- Well circumscribed nodule, cut surface was smooth, homogenous and occluded.



Fig 2A- Tumor composed of tubulo-glandular and duct like spaces around the lumen of the fallopian tube (haematoxylin and eosin stained; original magnification, X40).

Fig 2B- Tumor cells are bland in a sparsely cellular stroma(haematoxylin and eosin stained; original magnification, X100).

The tumor cells are pleomorphic along with diagnostically important vacuoles which may be relatively inconspicuous. Mitoses are absent.⁴Immunohistochemical studies reveal diffuse, strong membranous cytoplasmic reactivity with pankeratin (CKAE1/CAM5.2), nuclear and cytoplasmic positive staining with calretinin and D2-40.⁵WT-1 nuclear antibody staining is seen in most cases of adenomatoid tumors but they are positive even in the endometrial epithelium and myometrium, thereby limiting their utility.⁶These tumors are consistently negative for CK 5/6, CK 14, CK 20, EMA, CD 31, CD 34, p53, CD 68, MDM2 and S-100.⁷ Four hypothesis had been proposed for their histogenesis which included endothelial, mesonephric, mesothelial and mullerianorigin.⁸Acid mucopolysaccharide (AMPS), was histochemically present in these tumors and was demonstrated with special stains such as colloidal iron, alcian blue or toluidine blue, with or without hyaluronidase predigestion.⁹Immunoperoxidase localization of keratin proteins, with no staining for carcinoembryonic antigen, and factor VIII in adenomatoid tumors support mesothelialrather than endothelial derivation.¹⁰ Electron microscopy features included microvilli, desmosomes, tonofilaments and tonofilament-like structures, and dilated intercellular spaces which supports their mesothelial origin.¹¹ Elastin is formed by the mesothelial cells and in some adenomatoid tumor cases, elastogenesis and stromal fibroblasts was enhanced by activated mesothelial cells.¹²Rarely, adenomatoid tumor of the fallopian tube may undergo massive infarction which is characterized microscopically by central necrosis with pale mummified tumor tissue surrounded by florid reactive process of fibroblasts and myofibroblasts resulting as a mimicker of malignancy.¹³Adenomatoid tumors have to be differentiated from Lymphangiomas and leiomyomas. They can also be confused with malignant mesotheliomas and adenocarcinomas but their circumscribed gross appearance, bland cytologic features and mitotic inactivity help in distinction from the malignant tumors.¹⁴

CONCLUSION

Adenomatoid tumor is the most common benign tumor of the fallopian tube, but nevertheless is extremely rare. It is important to recognize this tumor because the histological pattern is sometimes bizarre and can be misdiagnosed as malignant.

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