

## Case Report

# Adenomatoid Tumor of Uterus

Samina Iltaf  
Madiha Sajjad  
Sajid Hussain Shah

Department of Pathology (Histopathology),  
Islamic International Medical College,  
Rawalpindi, Pakistan

Corresponding Author:  
Dr Samina Iltaf  
Email: :saminalltaf@gmail.com

Adenomatoid tumor represents a rare type of genital tract tumor characterized by its benign behavior. In females, it is more commonly found in the fallopian tubes and rarely described in the uterus. It has a well defined morphological appearance. We present a case of adenomatoid tumor as an incidental finding in the uterus, based on histological and immunohistochemical analysis.

**Key Words:** Adenomatoid tumor, hysterectomy, Immunohistochemistry.

## Introduction

Adenomatoid tumor is a relatively rare benign neoplasm which usually arises in the genital tract.<sup>1,2</sup> The tumor is more frequently observed in the male genitalia such as the epididymis.<sup>1,3,4</sup> It also appears in the female genitalia, more commonly in the fallopian tubes followed by uterus and ovaries. Rarely, these tumors may originate in extragenital sites such as the adrenal gland, omentum, and mesentery<sup>1</sup>.

## Case Report

A 45-year-old woman, presented to the Gynae/obs out-patient department of Islamic International Medical Complex, with a history of intractable menorrhagia for one year, which was refractory to medical treatment. On pelvic ultrasound, an enlarged anteverted uterus with multiple fibroids was found. Hysterectomy was performed and specimen was sent to histopathology department of Islamic International Medical College- Trust Rawalpindi.. The patient had an uncomplicated postoperative course and was discharged from the hospital four days after surgery.

Multiple fibroids were seen on gross examination. On microscopy, in addition to leiomyomas, one of the nodules near uterine cornu revealed another benign tumor composed of gland-like structures and luminal spaces lined with flat, cuboidal to low columnar cells (fig1&2). In the more solid areas, there were scattered somewhat vacuolated cells with no nuclear atypia or mitotic figures (fig 3). A provisional diagnosis of adenomatoid tumor was made and the block was sent to AFIP for Immunohistochemistry. The lesion was positive for CK and negative for CEA. A diagnosis of

adenomatoid tumor was confirmed.

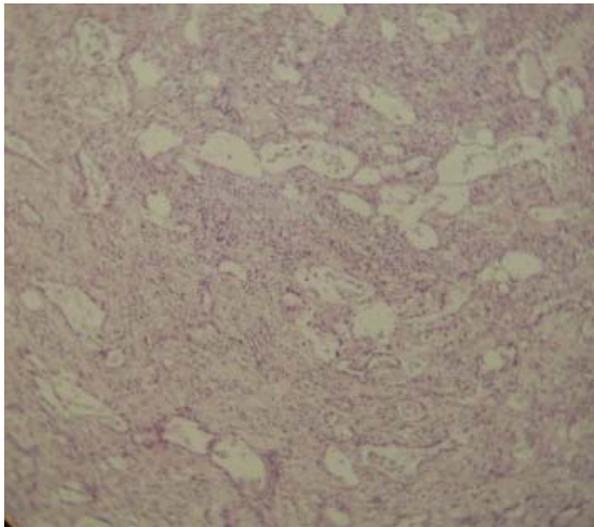
## Discussion

The incidence of adenomatoid tumors in the uterus has been reported in one series to be 1.2%.<sup>1</sup> However, the true incidence is probably greater as these tumors frequently go unsampled because of their small size and gross appearance, which is similar to leiomyomas.<sup>1,4,5</sup> Most large adenomatoid tumors are located subserosally in the posterior wall of the fundus or near the cornua.<sup>4, 6</sup> Almost all adenomatoid tumors of the uterus are solitary and asymptomatic discovered incidentally in the hysterectomy specimens as was observed in this case.

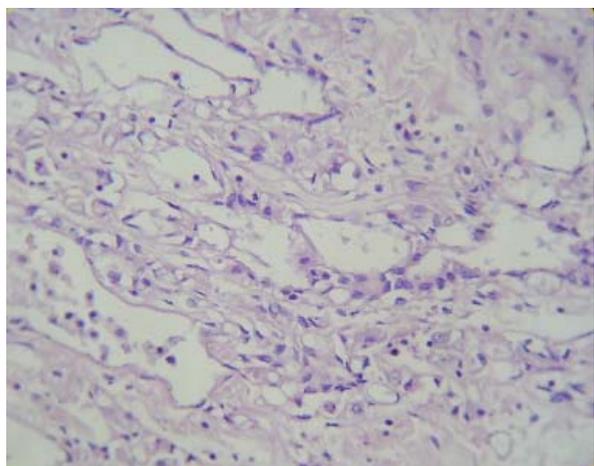
Adenomatoid tumors are commonly found in association with leiomyomas as in this case. Their microscopic features are diverse. Four distinctive histologic types (adenoid, angiomatoid, solid, and cystic) can be identified. The most frequent patterns are the adenoid and the angiomatoid types. The cystic type is very rare. Combinations of two or more patterns may occur in one tumor.<sup>1</sup> These may be accompanied by bundles of smooth muscle fibers. An adenomatoid tumor may be confused with adenocarcinoma because of its glandular pattern.<sup>9</sup> In this case the tumor was located intramurally and was angiomatoid in appearance.

Since the discovery of adenomatoid tumors, their histogenetic origin has been debated; mesonephric, müllerian, endothelial and mesothelial origins have been suggested. Previous studies based on transmission electron microscopy, scanning electron microscopy and immunohistochemistry support a

mesothelial origin.<sup>1,7</sup> Because of the anatomical distribution of the tumor, its derivation from primitive pluripotent mesenchymal cells has also been suggested.<sup>8</sup>

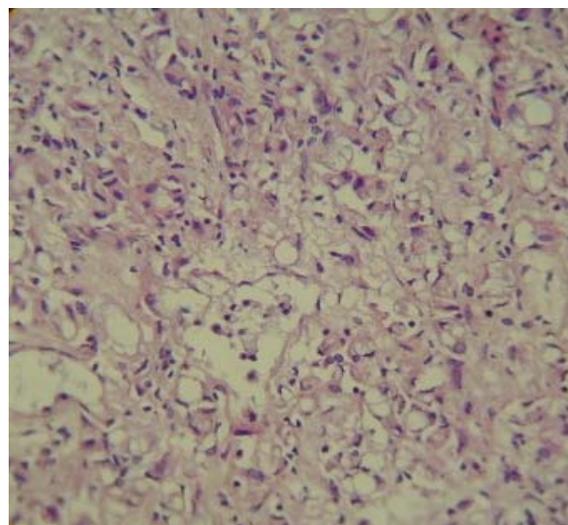


**Fig 1: Adenomatoid tumor, (H&E x 100)**



**Fig 2: Adenomatoid tumor (H&E x 400)**

In one series, immunohistochemical analysis exhibited strong and diffuse positivity for calretinin and AE1/AE3 in all tumors.<sup>8, 10</sup> In another series, staining for vimentin and HBME1 was also strongly positive, supporting a mesothelial origin of the tumors. In both series tumor was immunoreactive for cytokeratins, calretinin, HMBE-1, and vimentin. Estrogen and progesterone nuclear receptors and EMA were negative.<sup>11</sup> In this case, the tissues stained positive for cytokeratin but were negative for CEA, indicating a mesothelial origin.



**Fig 3: Relatively Solid Area, (H&E x 400)**

## References

1. Kim J Y, Jung K, Sung N K, Chung D S, Kim O D, Park S. Cystic Adenomatoid Tumor of the Uterus, *AJR* 2002; 179:1068-1070.
2. Leaha C, Opris I, Mace P, Resch B, Sabourin JC. Cystic adenomatoid tumor of the uterus. *Ann Pathol.* 2009 Apr;29(2):134-7.
3. Manjunath GV, Nandini NM, Sunila. Fine needle aspiration cytology of adenomatoid tumour--a case report with review of literature. *Indian J Pathol Microbiol.* 2005 Oct;48(4):503-4.
4. Luchs J, Diel J and Katz D S. Diffuse Adenomatoid Tumor of the Uterus. *AJR* 2000; 175:554-55.
5. Duval H, Rioux-Leclercg N, Bauville E, Al Jaradi M, Burtin F. Multinodular-adenomatoid tumor of the uterus in a patient with a renal allograft. *Ann Pathol.* 2008 Sep;28(4):308-10
6. Hong R, Choi DY, Choi SJ, Lim SC. Multicentric infarcted leiomyoadenomatoid tumor.a case report . *Int J Clin Exp Pathol.* 2009;2(1):99-103
7. Rappa F, Ternullo MP. Adenomatoid tumor. *Pathologica.* 2006 Apr;98(2):164-6
8. Grag K, Lee P, Ro JY, Qu Z, Troncoso P, Ayala AG. Adenomatoid tumor of the adrenal gland: a clinicopathologic study of 3 cases. *Ann Diagn Pathol.* 2005 Feb;9(1):11-5.
9. Zubair A, Jamal S, Mubarak A, Mushtaq S, Mamoon N, Malik TM. Adenomatoid tumor of the uterus. *Int J Pathol* Dec 2007;5(2):77-8.
10. Zhu L, Li B. Clinical pathological analysis of adenomatoid tumor in uterus and ovaries *Zhonghua Bing Li Xue Za Zhi.* 2001 Feb;30(1):43-5.
11. Nogales FF, Isaac MA, Hardisson D, Bosincu L, Palacios J, Ordi J et al. Adenomatoid tumors of the uterus: an analysis of 60 cases. *Int J Gynecol Pathol.* 2002 Jan;21(1):34-40