

## Adenoma Malignum of Cervix – How Useful is Clinico-Radiological Diagnosis?

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### ABSTRACT

Adenoma malignum (AM) is a rare type of variant of cervical cancer. The entity remains silent because of common complaints of erratic menstrual cycles and leucorrhoea in peri-menopausal age group of females. The imaging modalities play a great role in clinching the diagnosis before the final confirmation by histopathological examination. We present 60-years old post menopausal woman who reported to gynecology outpatient department with complaints of per vaginum bleeding and watery discharge of six months duration. She was evaluated by cross imaging modalities of ultrasound (US), color flow imaging (CFI) and magnetic resonance imaging (MRI) with working diagnosis of adenoma malignum of cervix. This was subsequently confirmed in histopathological examination. The importance of the case lies because of the early diagnosis by clinic-radiological evaluation in the light of poor prognosis and early dissemination of this entity.

**Keywords:** Adenoma malignum, US, CFI, MRI.

### INTRODUCTION

Adenoma malignum is a rare variant of cervical cancer. This is also called as minimal deviation adenocarcinoma; Gusserow in 1870 described this entity first time. In 1896 Hellier reported a case where the mass was projecting in the vagina but without involving it and called it as Adenoma Malignum Cysticum Cervicis Uteri. The appearance of the growth was that of cauliflower but the vaginal wall was not involved. The incidence is 1-3 % of all cervical cancers.

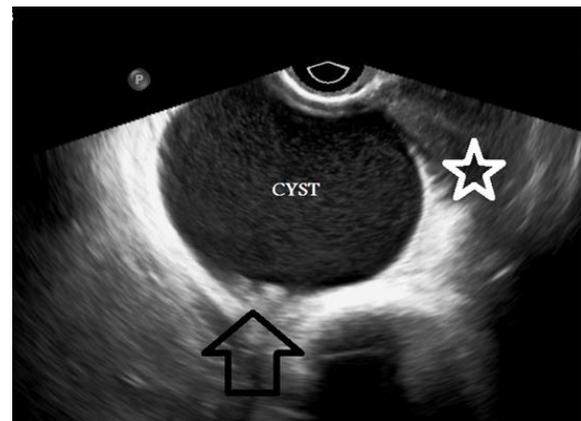
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### CASE REPORT

60-years old female reported to the gynecology outpatient department with the complaints of menorrhagia and per vaginum white discharge of six months duration. On examination she was averagely built with normal external genitalia. On speculum examination there was a lot of blood stained discharge per vaginum and a few lobular masses hanging within introitus. The cervix was firm and indurated. Uterus was bulky but without any other abnormality. Transvaginal ultrasound examination

had shown several nabothian cysts with a few echolucent structures projecting in the cervical region. There was also a cystic mass measuring 6.4 x 5.8 cm adjacent to the uterus and the epicenter of this mass could not be made out. There was also a small echogenic eccentric focus seen within this lesion. No calcification or septations were noticed.



**Figure 1:** Transvaginal ultrasound image. There is a well defined rounded echolucent mass adjacent to the uterine region (white star). There is a mural nodule seen at one side of the above mentioned lesion (black hollow arrow).

Color flow imaging (CFI) had shown increased vascularity in the region with dilated vascular channels of low flow spectrum [Figure 2 a and b].

MRI had shown multiple cystic lesions in the cervical region with distortion of glands. These lesions were hypointense on T1W images and hyperintense in T2W MR sequences [Figure 3 & 4].

There was another big cystic lesion which was hyperintense on T2W with an eccentric mural nodule within this mass [Figure 4].

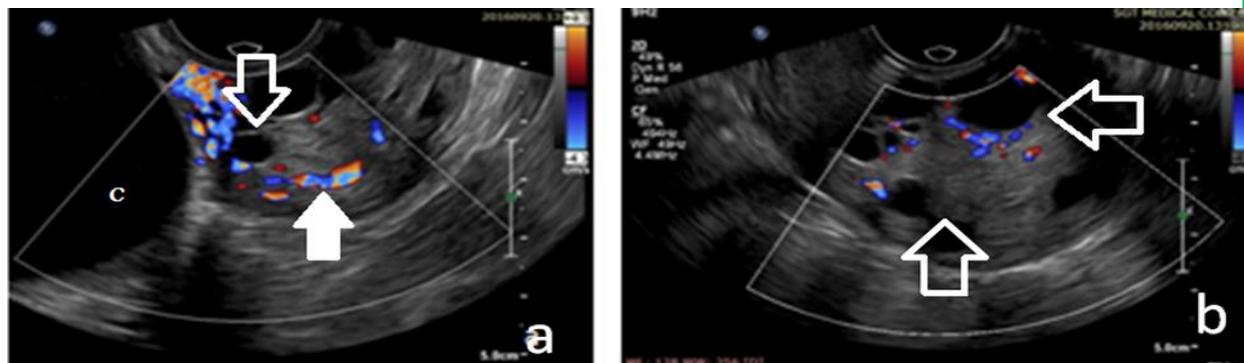


Figure 2: Color flow images of the pelvic region with transvaginal sonography.(a) Multiple vessels seen in the cervical region (white solid arrow) along with round echolucencies (hallow white arrow).There is also an adjoining large cyst seen without any vascularity.(b) Multiple nabothian cysts are also seen in the cervical region without any color flow (white arrows).

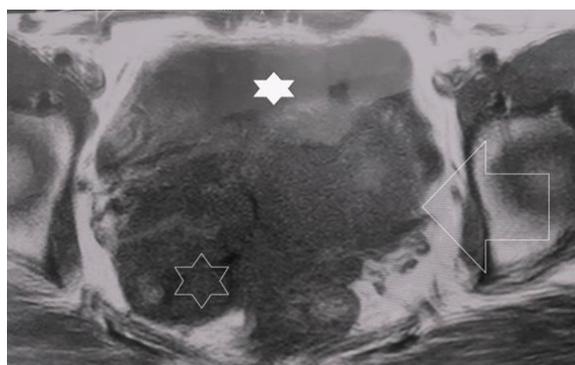


Figure 3: MRI T1W axial section of the pelvis. There is mixed intensity lesion in the pelvis without delineation of the uterine appendage (white hollow star) which lies posterior to the urinary bladder (white solid star).There is also round hypointense region abutting the above said region on the left side (white hollow arrow).

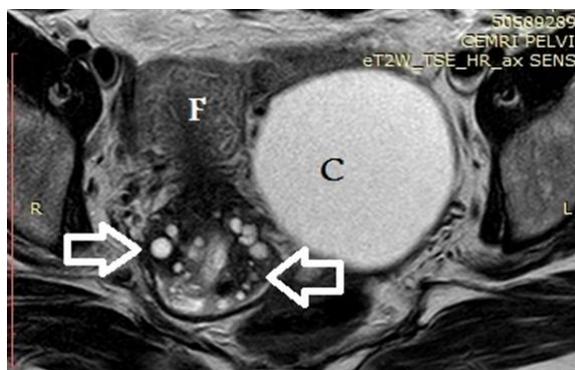


Figure 4: MRI T2W axial section .There are multiple round cystic hyperintense lesions in the uterine cervical region (white arrows) .There is also hyperintense cystic mass (C) seen which is well defined and has got a small hypointense mural nodule on the medial aspect. This mass is abutting the fundus of the uterus (F).

Post gadolinium MR sequences had shown intense enhancement at the uterine cervix leaving the nabothian cysts and cystic mass without any contrast uptake [Figure5].

She underwent laparoscopic hysterectomy. Histopathologically the specimen confirmed the diagnosis as adenoma malignum of cervix. There were large sheet of cells with honeycomb pattern with palisading at the periphery along with abnormal glandular and mucoid cells.

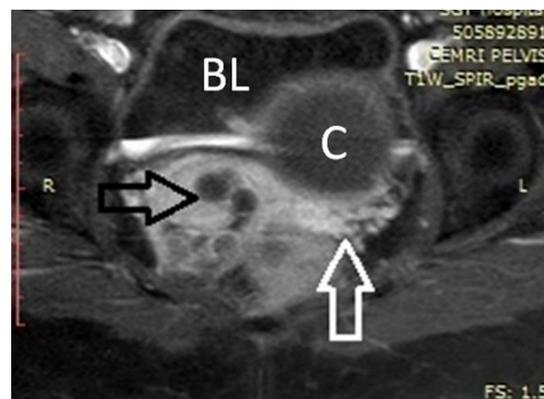


Figure 5: T1W post contrast FS axial section of pelvis. There is intense enhancement of the uterine cervix (white arrow) and the adjoining regions leaving nabothian cysts (black arrow) and the cystic mass (C) abutting the urinary bladder (BL).

## DISCUSSION

Adenoma Malignum (AM) is also called as mucinous variety of minimal deviation of adenocarcinoma of uterine cervical region. AM remains undiagnosed till the patient becomes symptomatic. The diagnosis is quite confusing

because of many cystic lesions being present at that location. Many a times the confirmation of the diagnosis comes after histopathological studies. Hirai et al has reported the watery mucoid discharge in all the cases of their series. This happens because of the secretion of the mucin secreting cells.<sup>[1]</sup> The estimation of carcino embryonic antigen (CEA) does not confirm the entity and so are others like punch biopsy. p13.3 genetic marker is believed to be associated with the entity. There have been a few cases of complications also and the largest series has been reported by Gilks et al.<sup>[2]</sup> Modern day imaging modalities like US, CFI and MRI plays a great role in getting closure to the diagnosis with subsequent confirmation by histopathology.<sup>[3,4]</sup> Ultrasound examination shows typically multicyclic lesions with multilocular cystic with some solid elements. Our case has shown the similar picture with a large mucinous cystic mass. Color flow imaging shows abundance flow in the lesions. MRI shows the well delineated anatomy of the multiple cysts extending from the endocervix to the deep stroma. These cysts are either hypointense or slightly hyperintense to the uterine region. The solid component shows intense post contrast enhancement This can be missed by many pathologists by considering it as under treatment of benign pathology.<sup>[5]</sup> The classical appearance of the entity shows honeycomb pattern of large sheet of cells, abnormal glandular cells with abundant cytoplasm and enlarged mucus cells with ovoid nuclei. The mainstay of the management is surgery and the exact data has not been collected because of the misdiagnosis in the preoperative evaluation. All cases require type III hysterectomy for the cases of adenoma malignum as was in our case. The role of adjuvant chemotherapy is still a controversial issue.

## CONCLUSION

Adenoma malignant misses the diagnosis because of the common complaints especially during perimenopausal time. Various radiological investigations help in evaluation of the case and bringing the final diagnosis closure and subsequently confirmation by histopathological examination. Ultrasound, CFI and MRI show the classical

findings which almost confirm the diagnosis in majority of the cases in the appropriate clinical setting.

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