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## CASE REPORT

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## A Case Report of Adenoid Basal Carcinoma of the Cervix

Therese H. Tran, D.O.  
Harvey Greenberg, M.D.  
M. Nawar Hakim, M.D.

### BACKGROUND INFORMATION

Adenoid basal carcinoma (ABC) is a rare neoplasm of the uterine cervix affecting women in the fourth to eighth decades (1). ABC account for less than one percent of all cervical adenocarcinomas (2, 3). There have been approximately 60 cited case reports in the literature since 1966 (3). This type of neoplasm usually presents in asymptomatic women with abnormal Pap smears.

The cell origin of ABCs is controversial (2). This type of neoplasm is believed to arise from the multipotential basal reserve cell layer of the cervical epithelium (1). It is characterized by small oval basaloid cell nests with peripheral palisading from the basal cell layer. The basal cells have scant cytoplasm, hyperchromatic nuclei, and low mitotic activity (2, 4). Histologically, ABC has four components: 1) high grade dysplasia; 2) limited invasive component with squamous maturation and a surrounding layer of basal cells; 3) outgrowth of small basal cells with low nuclear atypia; and 4) focal adenoid differentiation (5).

### CASE PRESENTATION

Our case involves a 54 year old Hispanic gravida 4 para 2 who was referred to us in 1996 for an abnormal Pap smear showing fragments of invasive squamous cell carcinoma. Her medical history included diabetes, hypertension, allergic rhinitis, and depression. Her family history was significant for lung cancer in her father, and her mother died of cervical cancer. She had no history of tobacco, alcohol, or drug abuse. Her pelvic examination was unremarkable and she had no visible cervical lesions. She underwent surgical cervical cold knife cone which revealed cervical intraepithelial neoplasias (CIN) III. Her follow up instructions included Pap smears every three months. Between 1996 and 2007, the patient had pap smears ranging from normal to occasional high grade squamous intraepithelial neoplasia (HGSIL). She had several colposcopies with biopsies ranging from HPV changes to CIN III. Her Pap smear in 2006 showed a low grade squamous intraepithelial lesion (LGSIL). She had a colposcopy with biopsy that showed CIN I. Due to an inadequate colposcopy and her extensive history of abnormal Pap smears, the patient was offered a Loop electrosurgical excision procedure (LEEP) for diagnosis. LEEP pathology revealed adenoid basal carcinoma.

After the diagnosis of adenoid basal cell carcinoma, the patient underwent cervical cancer staging and was staged with International Federation of Gynecology and Obstetrics (FIGO) Stage IB1 adenoid basal carcinoma of the cervix. The carcinoma was

entirely limited to the cervix. The patient subsequently had a simple hysterectomy in May 2007.

The pathology on the hysterectomy specimen showed multiple foci of well-differentiated adenoid basal cell carcinoma of the cervix scattered throughout the depth of the cervix and involving all quadrants. The aggregate tumor dimension was 3.0 cm. These foci ranged from squamous dysplasia to carcinoma in situ (CIS), with endocervical gland involvement. There was no uterine, lymphatic, or vascular involvement. The lateral specimen margins were not clear between 9 and 12 o'clock; therefore, she will follow up with frequent Pap smears. Her Pap smears since surgery have been normal.

### DISCUSSION

ABC is a low grade carcinoma which is highly differentiated, and usually is confined to the cervix (2, 9). Our specimen shows nests of uniform, mostly basaloid tumor cells with peripheral palisading and no stromal reaction (Figure 1). There are also hyperchromatic nuclei with scant cytoplasm and occasional mitotic figures (Figure 2). These findings are consistent with a diagnosis of ABC.

Our patient presented in the typical manner of women with ABC, asymptomatic with multiple abnormal Pap smears. Confirmation of ABC was made with LEEP excision, and hysterectomy. The association of HPV and ABC is also linked in this case, as there were sections of cervix which revealed HPV changes and CIN. Though the etiology and mechanism of tumor evolution is unknown, HPV 16 and aging may influence the progression of ABC (5).

Patients with ABC present typically with high grade dysplasia on Pap smears, and ABC is confirmed by excision. ABC is rarely identified on Pap smear unless there is ulceration of the lesion (6). On examination, 68 percent of cervixes are normal in appearance without lesions (2). Treatment of ABC in a patient who has completed childbearing is simple hysterectomy (3).

Human Papilloma Virus (HPV) along with age may play a role in progression of ABC (5). HPV is known to have viral-associated oncogenesis in cervical squamous cell and adenocarcinomas. In 89 percent of cases, ABC was associated with CIN (2). HPV 16 DNA was present in 9 of 10 tumors. All tumors expressed the oncogene P16 (7). There has been some association with p53 mutations in cases of ABC (8).

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The prognosis for ABC of the cervix is favorable, as they do not metastasize or cause death (4, 5). There has been proposal to change the name to adenoid basal “epithelioma”, instead of carcinoma, as some authors believe this tumor does not have histologic features of a malignant neoplasm (4, 8). A study reports 10 tumors comprised of low grade ABC, four were staged and no lymph node metastasis were present (7). In a case series of 66 patients with ABC, none had metastasis or tumor related death. In a study of 13 patients, 6 were staged FIGO Stage IA, 7 were staged FIGO IB. None of these cases of ABC showed any stromal reaction, lymphovascular invasion, or necrosis. There has not been a case of recurrence associated with ABC (8).

Since ABC progress slowly and have an indolent nature, the prognosis is favorable (2). After definitive surgical treatment these patients need close follow up with frequent pap smears. In a rare case, a patient diagnosed with ABC and a small cell carcinoma component died 18 months after diagnosis (7). A pure ABC, as we found in our patient, has low potential for recurrence, therefore the prognosis is excellent.

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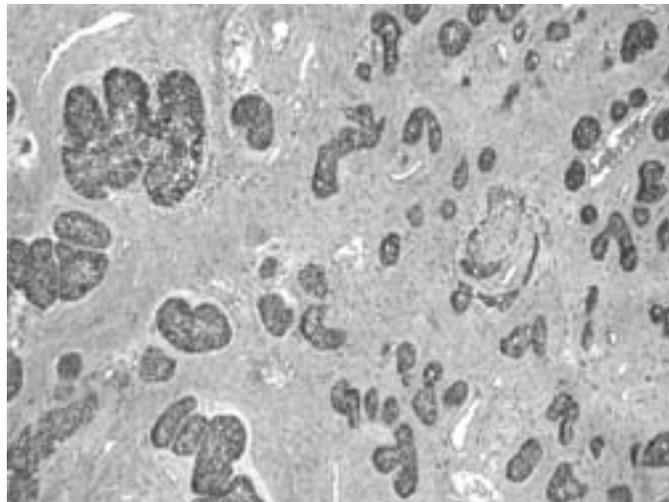
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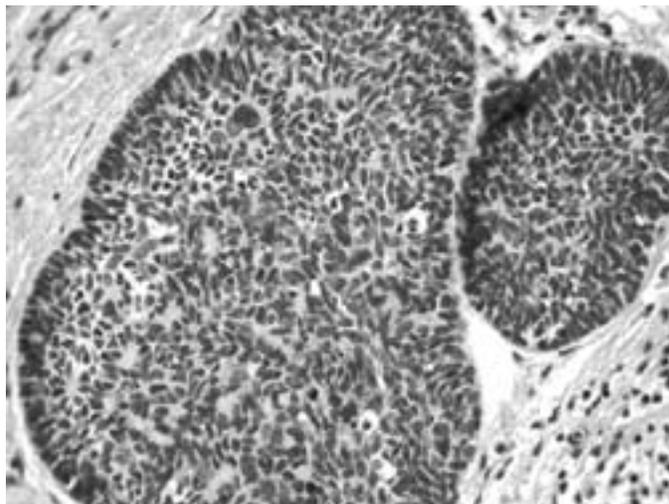
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**Figure 1.** Nests of uniform, mostly basaloid tumor cells, with peripheral palisading and no stromal reaction.



**Figure 2.** The tumor cells show bland nuclei and occasional mitotic figures.



**Therese H. Tran, D.O., PGY-4, Department of OB/Gyn, Texas Tech University Health Sciences Center, El Paso, Texas.**

**Harvey Greenberg, M.D., Associate Professor in the Department of Obstetrics and Gynecology at Texas Tech University Health Sciences Center, El Paso, Texas.**

**M. Nawar Hakim, M.D., Clinical Assistant Professor, Anatomical and Clinical Pathology, Department of Pathology, Texas Tech University Health Sciences Center, El Paso, Texas.**