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Adenosquamous Carcinoma of the Cervix in a 48-Year-Old Woman: A Case Report

Carcinoma adenoescamoso de cuello uterino en mujer de 48 años: reporte de un caso

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SUMMARY

Adenosquamous carcinoma of the cervix is a rare form of cervical cancer, representing approximately 4 % of all cervical carcinomas. The mean age when the tumor develops is 57 years, although in individual cases it may occur in young women. The reported case is of a 48-year-old woman, with histopathological findings of the tumor mass in the cervix, which is lined by squamous epithelium with a pleomorphic nucleus, enlarged, rough chromatin, some of the nucleolus being prominent eosinophilic cytoplasm. Noticeably tumor cells invade the stroma. In the other foci, glands appear proliferative experiencing disorganization, varied shapes, and sizes, lined with columnar epithelial, with dispolarization of the nuclei, pleomorphic, enlarged, rough chromatin, prominent nuclei, eosinophilic cytoplasm. Stroma consisted of fibrous connective tissue infiltrated by tumor cells and lymphocytes inflammatory cells. There is necrotic mass and the nuclei undergo dispolarization and interstitial hemorrhage. Adenosquamous carcinoma of the cervix is a malignant epithelial tumour comprising both adenocarcinoma and squamous cell carcinoma, as in the case of the microscopic findings for this case. The risk factors closely resemble those of squamous cell carcinoma, for example, multiple sexual partners. HPV types 16 and 18 are frequently identified. These tumors have a better prognosis than adenocarcinoma endocervical.

Keywords: *Adenosquamous carcinoma, cervix, case report.*

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RESUMEN

El carcinoma adenoescamoso del cuello uterino es una forma rara de cáncer de cuello uterino, que representa aproximadamente el 4 % de todos los carcinomas de cuello uterino. La edad media de desarrollo del tumor es de 57 años, aunque en casos concretos puede presentarse en mujeres jóvenes. El caso reportado es de una mujer de 48 años, con hallazgos histopatológicos de masa tumoral en cuello uterino, el cual está revestido por epitelio escamoso con núcleo pleomórfico, cromatina rugosa agrandada, siendo parte del nucléolo citoplasma eosinofílico prominente. Notablemente, las células tumorales invaden el estroma. En los otros focos, las glándulas aparecen proliferativas experimentando desorganización, formas y tamaños variados,

revestidas de epitelio cilíndrico, con despolarización de los núcleos, pleomórfica, agrandada, cromatina rugosa, núcleos prominentes, citoplasma eosinofílico. El estroma estaba constituido por tejido conjuntivo fibroso infiltrado por células tumorales y células inflamatorias de linfocitos. Hay masa necrótica y los núcleos sufren despolarización y hemorragia intersticial. El carcinoma adenoescamoso de cuello uterino es un tumor epitelial maligno que comprende tanto adenocarcinoma como carcinoma epidermoide, como en el caso de los hallazgos microscópicos de este caso. Los factores de riesgo se parecen mucho a los del carcinoma de células escamosas, por ejemplo, múltiples parejas sexuales. Los tipos de VPH 16 y 18 se identifican con frecuencia. Estos tumores tienen mejor pronóstico que el adenocarcinoma endocervical.

Palabras clave: *Carcinoma adenoescamoso, cuello uterino, reporte de caso.*

INTRODUCTION

Adenosquamous carcinoma is defined as a tumor having both glandular and squamous cell differentiation, with each component visible on hematoxylin-eosin without special histochemical stains (1-4) Adenosquamous carcinoma of the cervix accounts for approximately 4 % of all cervical cancer. Like both squamous cell carcinoma and adenocarcinoma, the mean age when the tumor develops is 57 years, although in individual cases it may occur in young women (2,5-7).

CLINICAL CASE

A case of a 48-year-old woman is reported. Operations were carried out in January 2018. Uterine and cervical tissue along with 2 adnexal grayish-white areas were obtained, with rough surfaces and solid rubbery consistency. The uterine weight was 110 grams, the size of the fundus to the cervix 9 cm, cornu to cornu 6 cm, with 3 cm of the anterior-posterior lateral and a cervical diameter of 2.3 cm. In cutting the cervical canal measurement was 1.8 cm and appeared to be a gelatinous mass and multiple colored grayish-white mass with a diameter of 0.1-0.2 cm. In the endometrium cutting, appear endoline along the 2.1 cm, the wall thickness 1.5-2.3 cm. The first fallopian tube size was 4 x 1 cm, and the diameter of the first ovary was 1.6 cm. The second fallopian tube size was 3.8 x 1.3 cm, and 1.5 cm in diameter for the second ovarian. In cutting the first tube, the wall thickness was 0.3-0.4 cm, 0.3 cm in diameter of the lumen. On cutting the second tube the wall thickness was from 0.3-0.4 cm, with a diameter of the lumen of 0.5 cm (Figure 1).

In a microscopic examination of the tissue preparations of the tumor mass in the cervix, which is lined by squamous epithelium with a pleomorphic nucleus, is enlarged, with rough chromatin, some nuclei are prominent eosinophilic cytoplasm. The appearance of the tumor cells suggests they invade the stroma. On the other foci, it appears that the proliferative

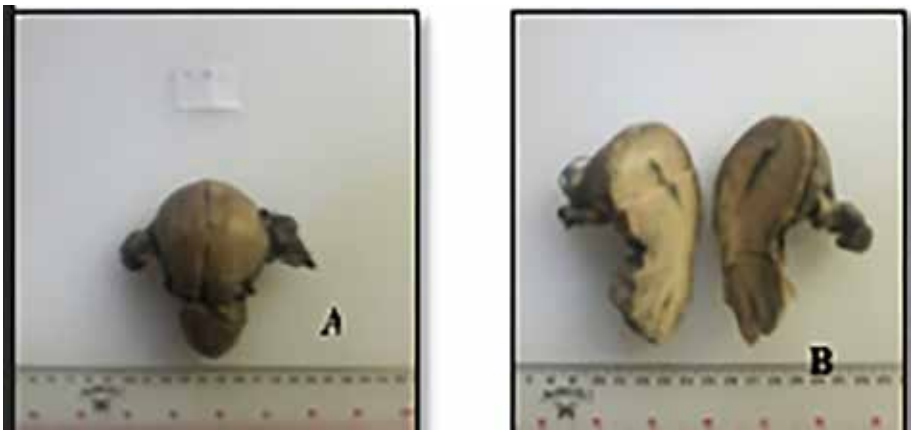

Figure 1. A. Macroscopic uterine cervix. B. Grossly uterine cervix.

glands experienced disorganization, with varied shapes and sizes, lined by columnar epithelial, dispolarization of the nuclei, pleomorphic features, enlarged, rough chromatin, prominent nuclei, and eosinophilic cytoplasm. Stroma is composed of fibrous connective tissue in the tumor cells infiltrated by lymphocytes inflammatory cells, necrotic mass, and the appearance of interstitial hemorrhage, blood vessel dilatation, and congestion (Figure 2).

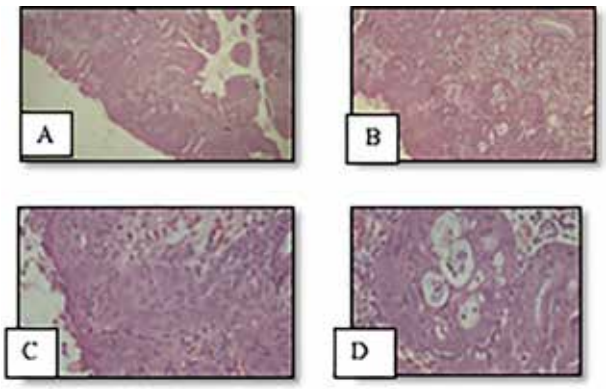

Figure 2. Mass in the cervix. A. Appearance of cervix lined by epithelial structures experiencing disorganization (H&E 40X). B. Appearance of epithelial structures squamous and glandular lined by epithelium disorganization (H&E 100X). C. Appearance of squamous cells nuclei which are pleomorphic, with rough chromatin, eosinophilic cytoplasm (H&E 400X). D. The structure of the gland lined by proliferated columnar epithelium, with a pleomorphic nucleus, rough chromatin, prominent nuclei and eosinophilic cytoplasm (H&E 400X).

From the description of the macroscopic and microscopic picture above, this case can be summarized as *adenosquamous carcinoma of the cervix* (ICD - O WHO 8560/3).

DISCUSSION

Adenosquamous carcinoma of the cervix is a malignant epithelial tumour comprising both adenocarcinoma and squamous cell carcinoma (1,2). It can also be defined as a tumor having both glandular and squamous cell differentiation, with each component plainly visible on hematoxylin eosin without special histochemical stains (2-4).

Adenosquamous carcinoma of the cervix accounts for approximately 4 % of all cervical cancer. Like both squamous cell carcinoma and adenocarcinoma, the mean age when the tumor develops is 57 years, although in individual cases it may occur in young women (2-4,8). The risk factors closely resemble those of squamous cell carcinoma, for example, multiple sexual partners. Human papillomavirus (HPV) types 16 and 18 are frequently identified (1-4,9,10).

Gross findings show the tumor may be polypoid, ulcerated, or nodular (2-4,11). The tumor can be large, with fungating, or hemorrhagic mass which occupies the cervix and extends into the lower uterine segment (4).

In microscopic findings, adenosquamous carcinoma of the cervix is composed of various amounts of glands and squamous epithelium, which are intimately admixed. The squamous component is characterized by squamous cells and keratin pearls, while the glandular component is typically the content of mucin secretion. Although mucin stains may be helpful to highlight the poorly formed glands or intracellular mucin, glandular differentiation should also be evident on a hematoxylin-eosin slide alone. In some tumors the squamous component may show prominent cytoplasmic glycogen accumulation (1-4)

There are two variants of cervical adenosquamous carcinoma, glassy cell carcinoma and clear cell adenosquamous carcinoma (10). Glassy cell carcinoma is rare, comprising only 1 %-2 % of cervical carcinoma. Grossly, glassy cell carcinoma may present with a barrel-shaped cervix. Morphologically, glassy cell carcinoma is characterized by cells with abundant eosinophilic ground glass cytoplasm, distinct cell borders, large nuclei, macronucleoli, and a high mitotic rate. They often show a prominent eosinophil infiltrate into the stroma surrounding the nest of neoplastic epithelium. Glassy cell carcinomas are reported to have a poor prognosis and worse outcomes than other cervical carcinomas (12,13).

A rare second category of adenosquamous carcinoma of the cervix is termed clear cell adenosquamous carcinoma. Clear cell

adenosquamous carcinoma in which at least 70 % of tumor cells have vacuolated, with clear cytoplasm containing large amounts of glycogen has been referred to as clear cell adenosquamous carcinoma. The cohesive sheets of tumor cells are frequently subdivided by connective tissue septa, which can have a prominent lymphocytic infiltrate that produces a lobulated appearance. In some clear cell adenosquamous carcinoma, spindle-shaped cells are suggesting squamous differentiation. Unlike clear cell carcinomas, clear cell adenosquamous carcinoma lacks papillary or tubulocystic areas and hobnail cells (9,12,14).

Cytologically, adenosquamous carcinoma of the cervix demonstrates a variable admixture of squamous and glandular elements (2,3,15).

Based on the histogenesis both squamous intraepithelial lesion (SIL) and adenocarcinoma in situ (AIS) are precursor lesions for adenosquamous carcinomas. HPV 18 followed by HPV 16 are the most prevalent HPV types (1).

The chromosomal translocation t (11,19) associated CRTC1-MAML2 gene fusion is identified in cervical mucoepidermoid, but note adenosquamous carcinomas (1,10).

Adenosquamous carcinoma of the cervix should be distinguished from adenocarcinoma coexisted squamous intraepithelial lesion (SIL). Usually, there is no mixing of tumor elements as seen in the adenosquamous carcinoma. Adenoid basal carcinomas consist of basal cells and squamous cell carcinomas with focal mucin droplets (16).

Adenosquamous carcinoma of the cervix is stained positive with cytokeratin 7 (CK 7) and cytokeratin 5/6/14 (CK 5/6/14) in the immunohistochemistry technique of Mucins can also be found positive (16,17).

The belief that adenosquamous carcinoma of the cervix has a poorer prognosis than squamous cell carcinoma or adenocarcinomas has been repeatedly challenged. In one large series, patients with adenocarcinoma, squamous cell carcinoma, and adenosquamous carcinoma had no significant difference in 5-year survival in any clinical-stage except American Joint Committee on Cancer stage II, where squamous cell carcinoma had a better survival rate. Of interest, patients with adenosquamous carcinoma and positive lymph nodes had the highest 5-year survival rate, whereas women with adenocarcinoma and positive nodes had a sharply reduced survival rate. Recent data suggest that patients with adenosquamous carcinoma have a better prognosis than endocervical adenocarcinoma in patients who are stage I, and sometimes stage II. Regardless, adenosquamous histology, like most cancers, predicts a poor outcome for patients with advanced-stage disease (2,18).

The management of adenosquamous carcinoma of the cervix is radical hysterectomy and chemoradiation. If the prognosis is bad, the choice of management is radiation only (19-21).

CONCLUSIONS

The case of a 48-year-old woman has been reported, with a tumor mass showing the components of squamous epithelial cells and glandular structures lined by epithelium with atypical cell morphology. The results of the macroscopic and microscopic examination can be summarized as adenosquamous carcinoma of the cervix.

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