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CASE REPORT

Papillary Squamotransitional Cell Carcinoma Cervix: Case Report of a Rare Variant

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ABSTRACT

Papillary squamotransitional cell carcinoma (PSTCC), a less commonly reported histopathological subtype of cervical cancer's most common "squamous cell carcinoma". Papillary cervical carcinoma has similarity to urinary tract transitional cell cancers. PSTCC present more in postmenopausal women with late symptom presentation, are underdiagnosed and underreported because of rarity and also have recurrences many years after initial diagnosis.

Here we report a case of 52-year-old postmenopausal woman with complaints of bleeding per vaginum for few months. Her cervical cytology reported atypical cells of undetermined significance (ASCUS) and cervical biopsy as a high-grade squamous intraepithelial lesion (HSILs). The patient underwent total laparoscopic hysterectomy with bilateral salphingoopherectomy and her hysterectomy specimen pathological evaluation diagnosed her to be papillary squamotransitional cell carcinoma mixed type. With 18 months follow-up, the patient did not show any local, regional or systemic recurrence.

When cytology and histology findings do not match, clinical suspicion and awareness of papillary squamotransitional cell cervical cancer are prerequisites for an accurate diagnosis.

Keywords: Cervix, Cancer, Papillary, Squamous, Transitional.

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INTRODUCTION

All over the globe, the most common reported cervical cancer is squamous cell carcinoma (SCC) keratinizing or nonkeratinising. Lesser common subtypes are those having a papillary component in squamous cells which can be in three different forms:

- Predominantly squamous type
- Mixed squamotransitional type (PSTCC)
- Predominantly transitional type.[1,2]

Papillary squamotransitional cell carcinoma is less commonly recognized and reported histological subtype. As these tumors have a distinguishing surface papillary growth pattern and can be deeply invading, PSTCC has aggressive biological behavior. They tend to recur locally also and can metastasize even after a more extended period of time.[3,4] Even though the histopathology suggests a very superficial or a microinvasive lesion, it may be at an advanced stage of invasion.[5]

It becomes necessary to separately identify from the commoner and benign varieties of the cervical papillary lesions like condyloma acuminata and squamous papillomas) because of its potentially aggressive biological course.

The recognition of PSTCC of the cervix is important despite it being a lesser common variant, to demarcate its clinical findings, pathological features and natural history of the disease. When cytology and histology findings do not match, clinical suspicion and awareness of papillary squamotransitional cell cervical cancer are prerequisites for an accurate diagnosis.

Here we report a case of a 52-year-old postmenopausal woman with complaints of bleeding per vaginum for a few months who was diagnosed with PSTCC.

CASE DESCRIPTION

A 52-year-old, P4L3, postmenopausal woman presented to our outpatient department with complaints of nonodorous purulent vaginal discharge since 1 year. She had her menopause 6 years back, although there was no history of postmenopausal bleeding she had discharge per vaginum on and off since last one year. She was recently diagnosed case of diabetes mellitus and had been started on oral hypoglycaemic agents. She had no history of oral contraceptive use, the partner was single with no exposure to sexually transmitted disease. She had not undergone cervical cancer screening anytime in her reproductive lifespan. Her general physical examination was normal as per her age. In systemic examination

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as well as in abdominal examination no abnormalities were detected.

As a part of the gynecological examination, cervix on speculum examination looked unhealthy with congestions and irregularity, although no obvious growth was seen. The thin mucopurulent discharge was also present. Vagina appeared to be healthy. The uterus was normal size, non-tender, mobile with non-palpable adnexa and parametrium. However, bleeding from cervix on manipulation was seen. Cervical papanicolaou smear was taken.

Cervical Pap smear testing report came out with negative for intraepithelial cell or malignancy along with features of inflammatory cervical smear with the presence of atypical cells (ASCUS). Because of the report, colposcopy directed cervical biopsy was done and the resultant report was "suspicious of squmaous cell carcinoma" (HSIL). Invasion of the lesion could not be commented upon.

Loop electrosurgical excision procedure of cervix was planned to get a proper depth of biopsy specimen, histopathology reported high-grade squamous intraepithelial lesion (HSILs) and once again margin invasion could not be commented upon due to cautery effect.

MRI could not be done due to monetary constraints. Preoperative work-up of the patient showed normal blood parameters of complete blood counts, liver function tests and kidney function tests. Surgical management was formulated for a suspicious cancer cervix with no obvious growth (stage 1 a1) in this postmenopausal women by laparoscopic hysterectomy and bilateral salpingo-oophorectomy.

Intraoperatively uterus and bilateral tubes and ovaries were normal. Cut section of the specimen showed pale yellowish uterine body and cervix, with no grossly visible tumor or lesion.

Histopathology reported it to be a "Papillary squamo–transitional carcinoma of the cervix (mixed type) (pT1b2) (pNX), mixed cellular components of transistional and squamous cells are seen with presence of papillary architecture at places (Figs 1 and 2) tumor extension into uterine corpus however serosal layer was free of tumor (closest distance 0.1 cm away from the serosal surface in the lower uterine segment,)". Another finding was of cervical intraepithelial neoplasia grade III (CIN III) at cervical resection margin; however, invasive carcinoma was lying 0.4 cm away from a new cervical resection margin.

The patient was referred to a center for oncology where she underwent 6 cycles of radiation therapy (teletherapy) which was an overtreatment for her stage of cancer cervix. She is healthy and asymptomatic and free of tumor or metastasis in 18 months of her follow-up.

DISCUSSION

The most common cervical cancers are the keratinizing and nonkeratinizing (nonpapillary) variants of squamous cell carcinoma (SCC).[6]

The papillary growth pattern is recognized in verrucous SCC, condylomatous (warty) SCC and squamotransitional cell carcinoma having both true squamous and transitional cells in combination. PSTCC is the latest subtype to be recognized and described.

Identifying these unusual SCC variants is important as course of disease progression and its further management differs among the histologic subtypes.[7]

Papillary squamotransistional cell carcinoma of the cervix (PSTCC) along with its histological subtypes are considered as separate entities. This fact is supported by the study of Randall et al.[4] and Koenig et al.[1] Randall et al. in their study of nine PSTCC cases proposed papillary squamous cell carcinoma of the cervix to be a unique clinic- pathological entity, which is different from verrucous carcinoma.

Koenig et al.[1] studied 32 cases of papillary squamotransitional cell carcinoma cervix. They divided them into three groups:

- Predominantly squamous (28.1%)
- Mixed squamous and transitional (50%)
- Predominantly transitional (21.9%).

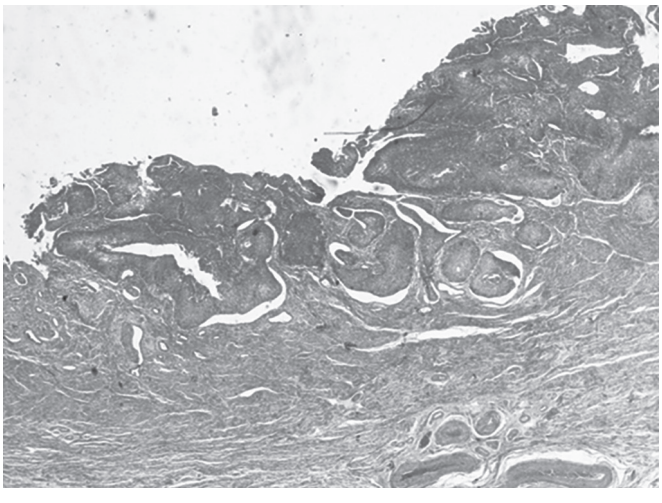

Fig. 1: Papillary architecture

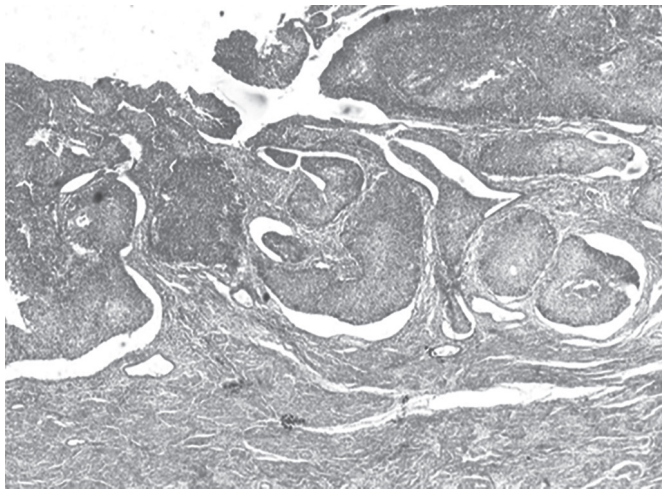

Fig. 2: Transitional cell rests in PSCC

Atypical cervical epithelium in all of these resembled HSIL, which were present in multiple layers over papillary structures having a vascular and fibrous core. Their conclusion was that PSTCC with its subtypes is a distinct entity with a morphologic spectrum and different clinical and pathological form.

Brinck et al.[8] in their study of three cases proposed that papillary SCCs have similar risk factors as the squamo-transitional and condylomatous carcinoma but no resemblance to verrucous carcinoma.

Human papillomavirus may have a causative role in these carcinomas. The only subtype of squamous/(squamo-)transitional carcinomas that do not manifest HPV related histopathological findings even when infected by high-risk HPV type infection is the Papillary SCC. This reaffirms relation between HPV type and clinical outcome in variants of SCC with papillary features.[8]

Though being a known histopathological entity for the last 3 decades, correct histological diagnosis and staging are still difficult. In their study, Ng[9] concluded that PSTCC does have a distinctive cytological appearance of bland-looking basaloid cells or HSIL cells. As the cancer cells are sparse in PSTCC subtype, it is usually missed and hence underdiagnosed.

Al-Nafussi,[5] in their study, concluded that PSTCC has a tendency of late metastasis and local recurrence. In histological diagnosis, it is usually misinterpreted as cervical intraepithelial neoplasia grade 3 (CIN3) with a papillary configuration or even as a benign squamous papilloma of the cervix.

Does cervix have transitional cells or do these cells come from the urinary tract cancers?

Cervical transitional (SCC) cells have a different staining pattern (CK7+/CK20) than the transitional cell tumors arising from the urinary tract (CK7+/CK20+) and squamous cell carcinomas of the cervix.[10,11] Immunohistochemistry differentiates urinary tract metastasis from transitional cell variants of SCC.

The knowledge about this important histological subtype PSTCC is required by both gynecologist and pathologist to differentiate it from a more benign course of other subtypes like verrucous or papillary squamous, because of its late recurrence and metastasis.

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