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Research Article

Papillary squamotransitional carcinoma of cervix: a series of four cases

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ABSTRACT

Background: Carcinoma of cervix is the most common cancer in Indian women and squamous cell carcinoma is the principal histologic type. Papillary Squamotransitional carcinoma is a rare and distinctive variant of squamous cell carcinoma of the uterine cervix, which differs by histology and clinical behavior from conventional squamous cell carcinoma. It shows papillary architecture with fibrovascular cores lined by multilayered atypical epithelium and is known for local recurrence and late metastasis.

Methods: 4 cases of papillary squamotransitional carcinoma of cervix were diagnosed on cervical punch biopsies. All 4 cases were analyzed histopathologically.

Results: Patients ranged from 40 years to 70 years with pain in abdomen being commonest presenting symptom. All the cases showed papillary architecture with fibrovascular cores lined by multi-layered atypical epithelium. Three cell types were observed: Clear, intermediate and basaloid.

Conclusions: Papillary Squamous Cell Carcinoma is a rare subtype of squamous cell carcinoma of cervix and is characterized by its aggressive behavior.

Keywords: Carcinoma of cervix, Papillary Squamotransitional carcinoma, Papillary Squamous Cell Carcinoma

INTRODUCTION

Carcinoma of cervix is the most common cancer in Indian women and squamous cell carcinoma is the principal histological type. Papillary squamo-transitional carcinoma is a rare and distinctive variant of squamous cell carcinoma of the uterine cervix, which differs by histology and clinical behaviour from conventional squamous cell carcinoma.¹ Papillary squamo-transitional cell carcinoma can show variety of spectrum such as pure squamous, pure transitional and mixture of both.² It shows papillary architecture with fibrovascular cores lined by multi-layered atypical epithelium and is known for local recurrence and late metastasis.³

METHODS

4 cases of papillary squamo-transitional carcinoma of uterine cervix were diagnosed on cervical punch biopsies received in Department of Pathology over a period of one year. All the biopsies were processed by routine paraffin processing and stained with haematoxylin and eosin stain.

RESULTS

Mean age among the 4 cases was 52 years with age ranging from 40 years to 70 years. The presenting symptoms were Pain in abdomen (all 4 cases), P/V bleeding (2 cases) and P/V discharge (2 cases). Per speculum examination in all cases revealed an ulcerated growth in uterine cervix. All the cases were subjected to cervical punch biopsy.

Histopathological examinations

Case 1

Cervical punch biopsy was taken and sent for histopathological examination. Microscopic examination revealed neoplastic cells in papillary arrangements with central fibrovascular core (Figure 1). Neoplastic cells were of both squamous and transitional type. Diagnosis of invasive papillary squamo-transitional carcinoma was given based on the microscopic features.

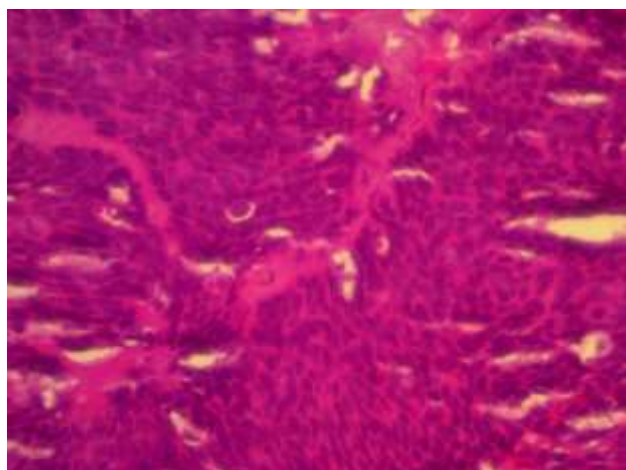


Figure 1: Tumor showing papillary core and transitional epithelium showing flattening at the upper most area (400x, H&E).

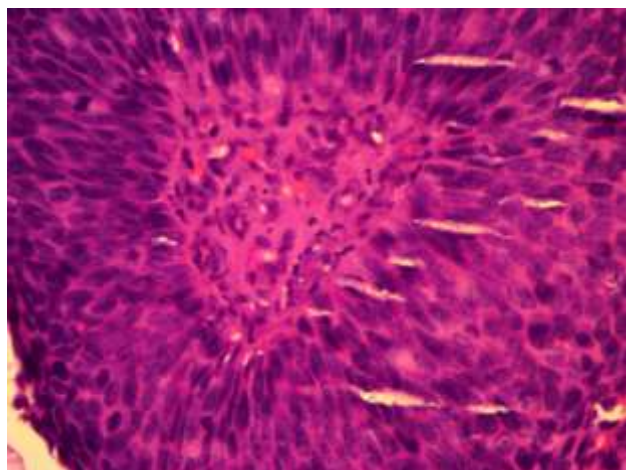


Figure 2: Tumor cells showing high N: C ratio with round to oval hyper chromatic nuclei, showing frequent mitotic figure (H&E, 400x).

Case 2

Cervical punch biopsy was sent for histopathological examination. All the sections studied showed tumour composed of neoplastic squamous cells arranged in

papillary pattern with central fibrovascular core (Figure 2). Diagnosis of moderately to poorly differentiated invasive papillary squamous cell carcinoma of the cervix was given on histopathological examination.

Case 3

Cervical punch biopsy was received for histopathological examination. Microscopic sections from the tissue revealed moderately differentiated neoplastic squamous and transitional around fibrovascular core in papillary arrangement (Figure 3). Diagnosis was given as moderately differentiated invasive squamo-transitional cell carcinoma.

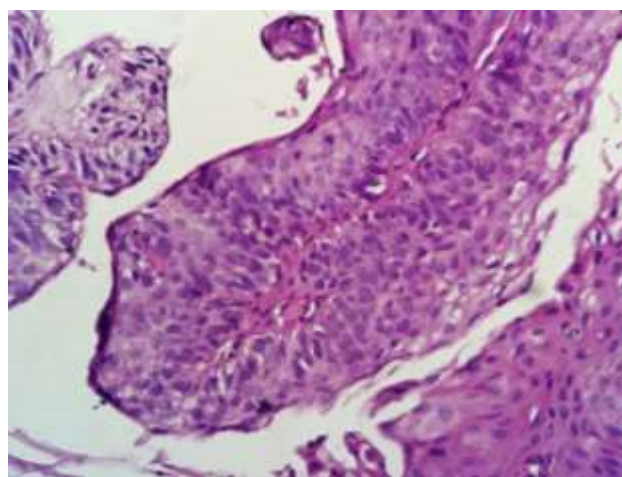


Figure 3: Tumor showing papillary configuration with multi-layering of cells (400x, H&E).

Case 4

Cervical punch biopsy was received for histopathological examination. Microscopic sections from the tissue revealed moderately differentiated neoplastic squamous and transitional around fibrovascular core in papillary arrangement. Diagnosis was given as moderately differentiated invasive squamo-transitional cell carcinoma.

DISCUSSION

Papillary Squamous cell carcinoma of the uterine cervix is a rare subtype of cervical cancer and shows distinct clinicopathological features.^{1,4}

Incidence of the tumor has been reported as 1.6% of the cervical cancers.⁵ These tumors were initially identified by Marsh in 1952 and characterized as papillary squamous cell carcinoma by Randell et al in 1985.^{6,7} The tumor occurs mainly in post-menopausal women.^{3,7} Our cases also presented in post-menopausal age.

Clinical presentation of this tumor is elderly women presenting with postmenopausal bleeding or abnormal Pap smear.^{7,8} Our patients also presented with post-

menopausal bleeding. These tumors are not diagnosed easily on colposcopic examination as tumor grows superficially with wart like exophytic growth.⁹

Histopathological examination

Papillary tumors of the cervix are divided into three groups based on histological appearance i.e. - Predominantly Squamous, Predominantly Transitional, Mixed Squamous and Transitional.¹⁰ The tumor reveals papillary projections covered by atypical epithelial cells which show squamous or transitional cell differentiation. Tumor cells reveal hyperchromatic oval nuclei with scanty cytoplasm with frequent mitosis. Few cases can show cytological changes suggestive of human papilloma virus infection but none of our cases displayed such changes.

Differential diagnosis

Papillary Squamous cell carcinoma can be mistaken for - Papillary squamous cell carcinoma in situ, Verrucous carcinoma or as Condyloma accuminatum.^{3,11}

Immunohistochemistry

Majority of papillary squamous cell carcinoma of the cervix display the cytokeratin profile of squamous cell carcinoma of the cervix (i.e., CK7+ /CK20-) in contrast to transitional cell carcinoma of the urinary bladder (CK7+/CK20+).¹²

Course and prognosis

The tumor is potentially aggressive and have tendency for late recurrences and metastasis. Six months follow up of our cases is uneventful.

CONCLUSION

Papillary squamous cell carcinoma of the cervix is a clinico-morphological distinct group of cervical lesions and displays a morphological spectrum.

As the tumor is potentially aggressive, should be distinguished from transitional cell carcinoma of bladder and other papillary lesions of the uterine cervix.

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Ethical approval: Not required

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