Case Report

Papillary Squamous Cell Carcinoma of Cervix: A case report with review of literature

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ABSTRACT

Carcinoma of cervix is one of the most common cancers in Indian women. Squamous cell carcinoma is the principal histologic type. Other variants like Papillary, Nonkeratinizing, Verrucous, Warty variants are seen at lesser frequencies. We are presenting a case of Papillary Squamous Cell Carcinoma (PSCC), a rare variant of Squamous cell carcinoma of cervix, which can be diagnostically challenging to differentiate from other variants.
KEYWORDS: Papillarysquamous cell carcinoma, cervix, variant..

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INTRODUCTION

Non-glandular papillary carcinomas of the cervix are uncommon tumours [1].Its incidence has been reported to be 1.6% of cervical carcinomas [2].Papillary Squamous Cell Carcinoma (PSCC) is not easily diagnosed based on the colposcopic selective biopsies and physicians are often unable to recognize the tumor depth [3].Papillarysquamous cell carcinoma grows superficially with wart-like or exophytic features.Histologically, papillary squamous cell carcinomas are composed of papillary projections covered by several layers of atypical epithelial cells. Sometimes a colposcopically diagnosed PSCC may turn out to be Nonkeratinizingvariant in resectedspecimen [4].

Case report

A 32 years old female came with a history of excessive bleeding per vagina since 3 months. Her menarche was at the age of 15 years. On physical examination the patient was moderately built and nourished with mild pallor. Per speculum examination showed a proliferative growth over the posterior lip of cervix measuring 2x2 cm. It was bleeding on touch. A punch biopsy was done and sent for histopathological examination.

Sections studied from the lesion showed a tumor of papillary architecture with lining epithelium

of dysplastic squamous cells [Fig 1]. The papillae were thick and hadfibrovascular cores. The tumorwas seen infiltrating the cervical stroma with sparse lymphocytic reaction. The cells had high N:C ratio and showed abundant mitoses. Cytoplasm was amphophilic and keratinisation was inconspicuous. Nucleus is round to oval and was hyperchromatic[Fig 2].

No overt keratinisation or keratin pearl formation was seen. No HPV induced changes were seen. Necrosis was not seen.The tumor was reported as Squamous cell carcinoma of cervix – Papillary variant.

Fig. 1: Multiple papillae with broad fibro-vascular cores covered by several layers of malignant squamous cells (H and E, ×40)

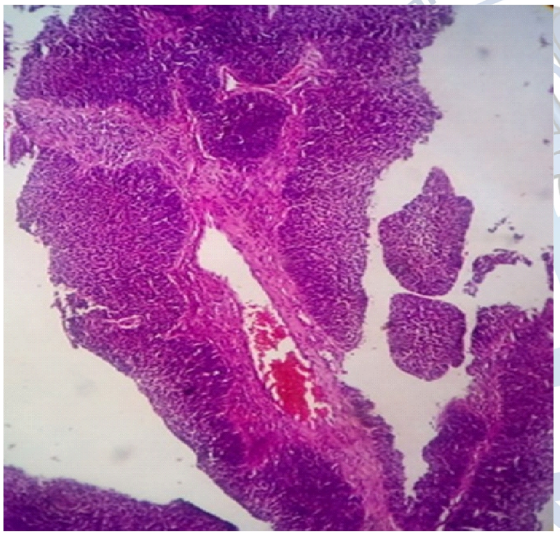
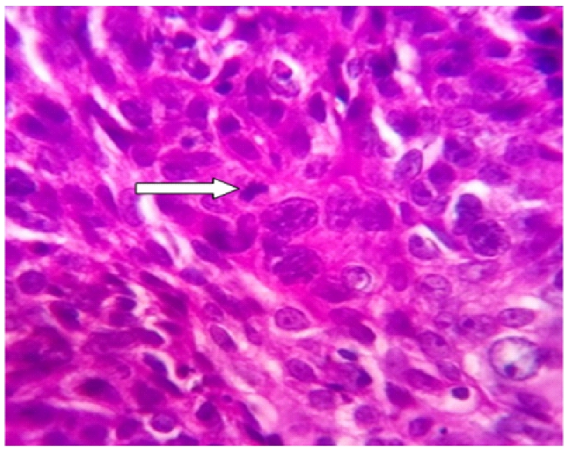


Fig. 2: The tumor cells show various degree of atypia and mitoses(Arrow) (H and E, x400)



DISCUSSION

Papillary squamous cell carcinoma of the cervix is an uncommon but a distinct clinicopathological entity.This is supported by a previous detailed report of PSCC of the cervix which was given by Randall et al [2], in which nine cases were described. They suggested that papillary squamous cell carcinoma of the cervix should be considered a distinct clinicopathological entity, separate from verrucous carcinoma. This conclusion was supported by clinical behavior and microscopic appearance of the papillary lesions. Three of the patients had metastases, a phenomenon which usually does not occur with true verrucous carcinoma. Besides, the papillae of PSCC are lined by dysplastic cells,whereas in verrucous carcinoma the papillae are lined by cytologically benign epithelial cells [5].

Previous evidence supporting the views that PSCC of the cervix as a distinct entity with variants came from Koenig et al. They studied 32 cases and divided them into three groups, viz. predominantly squamous (nine cases), mixed squamous and transitional (16 cases) and predominantly transitional (seven cases). All cases demonstrated a papillary architecture with fibrovascular cores lined by multilayered, atypical epithelium resembling high grade squamous intraepithelial neoplasia of the cervix. They concluded that papillary squamous cell carcinoma of the cervix is a distinct clinicopathological entity and display a morphologic spectrum [6].

In the study conducted by Michael Odida20 cases were reviewed. The tumour cells showed features of squamous differentiation. Some of the cases were composed of basaloid like cells while others were of intermediate cell type. The findings ofhis study lent further support that those papillary tumours of the cervix were actually variants of squamous cell carcinomas[7].

In the case series by Michael Odida, none of the cases were diagnosed as PSCC. But during the retrospective review 20 cases were confirmed as PSCC [7]. The same difficulty had been reported by Randall et al [2]. It was also observed that invasion may be difficult to demonstrate histologically unless deep biopsies are obtained. In the study by MichikazuNagura et al, 28 cases were diagnosed as PSCC on a colposcopic selective biopsy; however, only 12 cases (43%) were true PSCC, whereas the others were non-keratinizing or microinvasiveSCC[4]. Presently there is no precise definition of

PSCC.One study suggested that papillary tumours should be diagnosed only if papillary or anastomosing frond-like architectural pattern was seen in >70% of the tumour tissue[8]. In our study more than 90% of the tumor showed papillary architecture.

Papillary squamous cell carcinoma differs from warty squamous carcinoma by the inconspicuous keratinisation and lack of cellular features of HPV infection and from transitional cell carcinoma by its squamous cell differentiation [9]. Similarly we also observed lack of koilocytic changes which substantiates a diagnosis of PSCC.

The role of human papillomavirus (HPV) in squamous cell carcinoma of the cervix has come from many studies [10]. Whether PSCC of the cervix is associated with HPV is not clear.Koenig et al found cytologicchanges suggestive of HPV infection in six cases[6].Mirhashemi et al. reported that the rate of positivity for high-risk HPV in cases of PSCC is generally less than that observed in cases of conventional SCC (50% vs >95%) [11]. Therefore, it is possible that there are different mechanisms of carcinogenesis and clinical characteristics between PSCC and SCC.

Data on the behaviour of papillary squamous carcinoma of the cervix are few. Two studies from U.S.A showed that these tumours probably have the propensity of late recurrences and possibly late metastases[2,6].

CONCLUSION

Papillary squamous cell carcinoma of cervix is difficult to diagnose due to its rarity and limited data regarding its clinical behaviour. A high index of suspicion on the part of the clinician and an awareness of papillary squamous cell carcinoma by the pathologist are required to make an accurate diagnosis. In order to rule out other variants of SCC in the deeper tissue it has been proposed that conization should be conducted to diagnose PSCC.

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