

Basaloid Squamous Cell Carcinoma of Cervix – A Rare Case Report

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Abstract

Basaloid squamous carcinoma of the uterine cervix is a rare tumor type characterized by an ulcerated, infiltrating growth pattern; nests or cords of small basaloid cells; prominent peripheral palisading of cells in the tumor cell nests; and the absence of significant stromal reaction. The characteristic microscopic features are nests, lobules, trabeculae and groups of round to oval basaloid tumor cells. These tumor cells are small with high nuclear cytoplasmic ratio and shows peripheral palisading. There may be areas of comedo type necrosis and areas showing typical squamous cell carcinoma differentiation.

Keywords: Basaloid, squamous cells, carcinoma, cervix.

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INTRODUCTION

The term basaloid squamous cell carcinoma was first described by Wain et al in 1986. They described this as a highly malignant variant of squamous cell carcinoma with a basaloid pattern [1]. Grossly the tumor shows ulcerative infiltrating growth pattern. Microscopically characterized by infiltrating growth pattern, with peripheral palisading of tumor cells and minimal stromal reaction [2]. Infiltrating growth pattern is in the form of nests, lobules, trabeculae and groups of small basaloid cells. These cells are ovoid and relatively uniform in size, with scant cytoplasm and a high nuclear cytoplasmic ratio, thus the tumor cells appear undifferentiated. Nucleus contains evenly distributed coarsely granular chromatin. Areas of comedo necrosis is seen frequently. Tumor tissue also shows variable component of typical squamous cell carcinoma [3-5]. The tumour derives most often from the larynx, laryngopharynx, tonsils, and base of the tongue, and more rarely from the nose, paranasal sinuses, external ear, submandibular region, oesophagus, lung, uterine cervix, vulva, vagina, and anus. One of the rarest locations of that disease is the uterine cervix [4]. It is thought that the tumour has a more aggressive course than the classical cervical

squamous cell carcinoma (SCC), higher metastatic potential, and poorer prognosis [5].

CASE REPORT

A 47 year old female presented with complaints of heavy menstrual bleeding and white discharge in between the cycles which is associated with foul smell, since 6 months. Patient is a known case of HIV on treatment since 12 years. On Per vaginal examination irregular mass was felt and it bleeds on touch. Cervix replaced by growth approx. 2 x 3cms. Per speculum examination revealed a friable and cauliflower like growth.

Cervical biopsy was done and tissue was sent for histopathological examination. Per rectum examination revealed firm induration over right parametrium.

Histological examination of all embedded specimen revealed tumour tissue comprising of strips of basaloid cells composed of scanty cytoplasm, hyperchromatic pleomorphic nuclei, arranged in sheets with peripheral palisading in few areas (Figure 1, 3 & 4). The cells are seen infiltrating into the underlying stroma with focal areas of necrosis and hemorrhage.

These individual cells are also showing focal areas of squamoid differentiation, keratinisation and occasional keratin pearls formation (Figure 2).

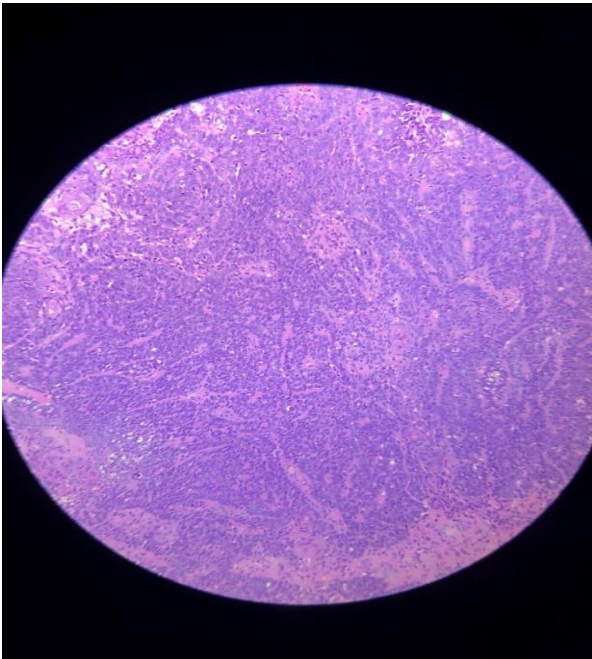


Figure 1: Light microscopy examination of slide image showing infiltration with neoplastic tissue that formed nests and palisading pattern [H&E, 4x]

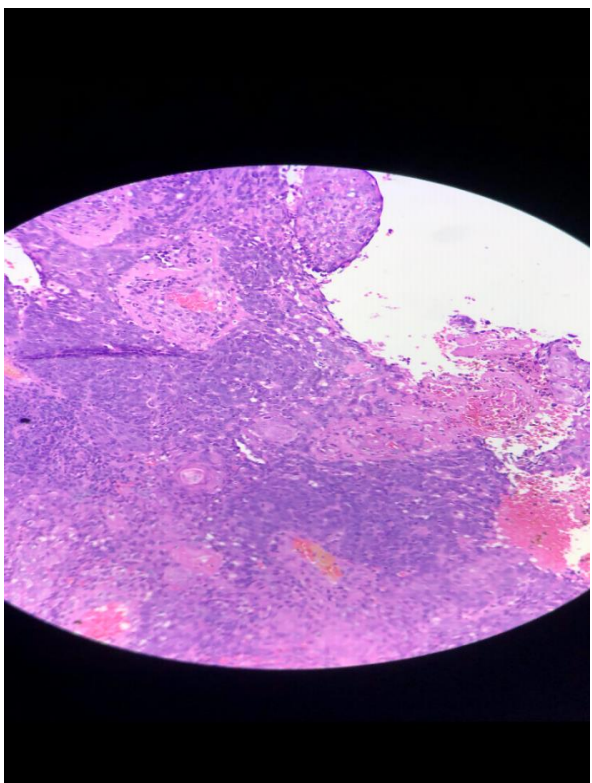


Figure 2: Light microscopy examination suggested palisading pattern of tumor cells arrangement with focal areas of necrosis and hemorrhage along with small keratin pearls formation [H&E, 10x]

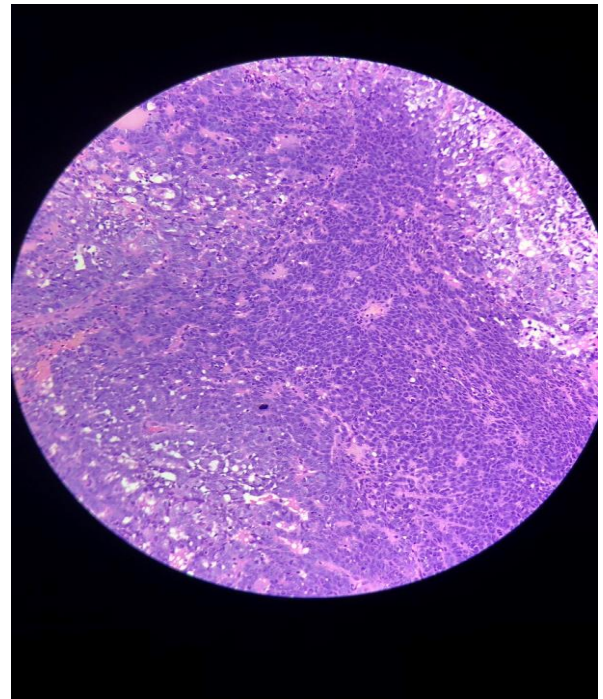


Figure 3: Light microscopy examination suggested tumor cells which are round to oval shaped cells, scanty cytoplasm, hyperchromatic nuclei with prominent palisading pattern [H&E, 40x]

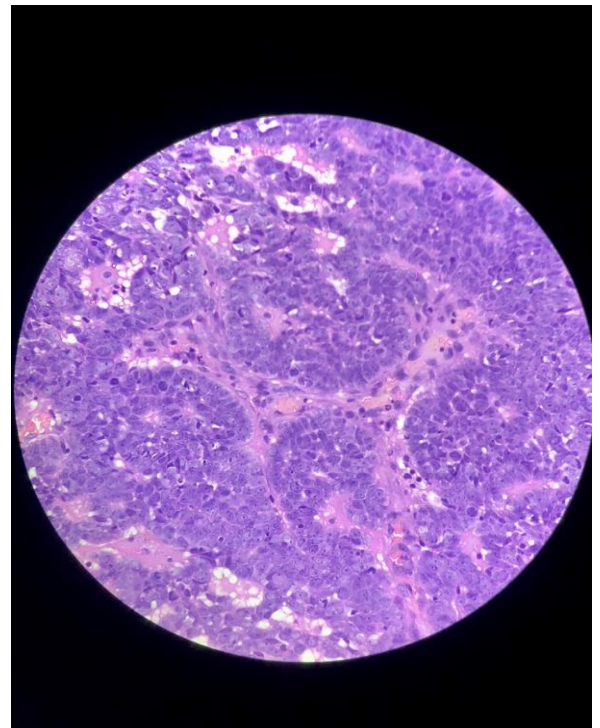


Figure 4: Section showing basaloid arrangement of tumour tissue with palisading pattern [H & E,x40]

DISCUSSION

Basaloid squamous cell carcinoma of the uterine cervix is an extremely rare and aggressive malignancy. It has poorer clinical outcomes than squamous cell carcinoma of the uterine cervix. The

tumour has specific microscopic features, and usually affects patients in their late 60s and 70s. Basaloid Squamous Cell Carcinoma (BSCC) is mainly an uncommon, aggressive type of squamous cell carcinoma. This malignant neoplasm generally affects women in their 60s and 70s. There are occasional reports of occurrence in younger individuals. Human papilloma virus (HPV), serotype 16 and 18 commonly associated with SCC as well as variants. The major differential diagnosis of basaloid SCC includes the solid variant of adenoid cystic carcinoma (ACC), small cell carcinoma, and large cell neuroendocrine carcinoma (LC NEC) of the cervix [3]. Solid ACC is distinguished from basaloid SCC by the focal presence of basement membrane material enveloped by basaloid neoplastic cells; in addition, the solid variant of ACC may show malignant squamous differentiation [1]. Small cell carcinoma may be composed of variably sized nests of relatively small, hyperchromatic tumor cells, which may mimic adenoid basal carcinoma (ABC) and smaller ABC- like nests. Rare cases may present with large neoplastic islands having peripheral palisading of tumor cells, which may be confused with solid variant of ACC. Oh *et al.*, indicate the possibility of developing basaloid squamous cell carcinoma after radio- and chemotherapy [3].

Immunocytochemistry can occasionally be helpful in identifying the epithelial origin of a basaloid carcinoma of the cervix. Some of these tumors have been shown to be strongly positive for higher molecular weight cytokeratin, whereas others have shown little or no expression of cytokeratin. Most tumors are positive for epithelial membrane antigen (EMA).

Although this tumor has an aggressive behaviour, this is not enough to substantiate that BSCC has a poorer medical outcome as compared to conventional SCC of cervix. Accumulation of data on

these rare tumors is therefore necessary to determine whether their behaviour differs significantly from that of conventional cervical SCCs of similar clinical stage. Long term follow-up of this patient and other such patients is therefore important [5].

Basaloid squamous cell carcinoma is rare tumor type involving uterine cervix and it is highly aggressive tumor. So it must be differentiated from other tumors of cervix. In our case age group involved is comparatively young.

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