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Case Report

Basaloid Squamous Cell Carcinoma of the Uterine Cervix

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Abstract
Basaloid squamous cell carcinoma (BSCC) is a rare and highly aggressive variant of squamous cell carcinoma. It was first described by Wain et al in 1986. The characteristic histologic features are nests, groups, trabeculae and lobules of small basaloid cells with peripheral palisading. There may be areas of comedonecrosis. The tumor has, in some cases, been found to be associated with areas of typical squamous cell carcinoma. The most frequently involved sites are larynx, hypopharynx, tonsils and base of tongue. But other areas of the body like nose, paranasal sinuses, external ear, submandibular region, oesophagus, lung, uterine cervix, vulva, vagina and anus are reported to be afflicted. A case of BSCC of uterine cervix was encountered and is being reported here.

Key words: Basaloid squamous cell carcinoma, Squamous cell carcinoma, peripheral palisading, basaloid cells

Introduction

The term Basaloid squamous cell carcinoma (BSSC) was first coined by Wain et al in 1986. They used it to describe a "highly malignant variant of squamous cell carcinoma with a basaloid pattern".[1]Since then there have been infrequent case reports describing neoplasms of similar morphology. The most commonly involved sites are larynx, hypopharynx, tonsils and base of tongue. Other less frequently effected sites are nose, paranasal sinuses, external ear, submandibular region, oesophagus, lung, uterine cervix, vulva, vagina and anus.[2,3]

The characteristic histologic features of this tumor include nesting, lobular or trabecular arrangement of small basaloid cells. These cells have scant cytoplasm and hyperchromatic nuclei. Prominent nuclear palisading is seen around tumor lobules. Areas of comedonecrosis are often present. There may be a variable component of typical squamous cell carcinoma.[2,3,4]

In this report a case of BSSC of cervix is being presented.

Case Report

A 45 year old female presented herself in Lahore General Hospital, Lahore, with complaints of irregular bleeding pervaginum for 6 months. She had her menarche at 14 years, gotten married at age 20. She had no history of sexual promiscuity but her husband had multiple sexual partners. She had been having a vaginal discharge for 10 years. She had been a smoker for 20 years. Pap smear examination revealed HSIL. She underwent Total Abdominal Hystrectomy and the specimen was sent to Department of Pathology, PGMI, Lahore for histopathological examination.

On gross examination the specimen measured 10x5x5 cm. The cervix appeared ragged. Serial sectioning revealed a whitish growth involving the entire thickness of the cervix. It spread upwards sparing only the fundal area (Fig 1).

Microscopic examination revealed a malignant neoplasm comprised of basaloid cells arranged in nests, lobules and trabeculae. Peripheral palisading was present around the lobules. The individual cells were small with scant cytoplasm and darkly staining nuclei. In addition, there were areas of typical keratinizing squamous cell carcinoma as well. Prominent comedocarcinoma pattern was seen in several areas. In some foci abrupt keratinization of basaloid cells was appreciated.The surrounding stromawas heavily infiltrated by a lympho-plasmacytic infiltrate. The tumor extended close to, but did not involve the endometrium (Figs 2, 3).

The diagnosis was Basaloid squamous cell carcinoma of uterine cervix.

Discussion

BSSC is regarded as a rare and aggressive variant of squamous cell carcinoma usually effecting patients in their 60's and 70's, though there are occasional reports mentioning younger patients.[2,4] Our patient was comparatively young being only 45 years old. Smoking is said to have a strong association with this tumor and this patient also gave a prolonged history of tobacco smoking.[2,5,6]

Human papilloma virus (type 16, 18), a sexually transmitted agent, has long been associated with typical squamous cell carcinoma as well its basaloid and warty variants.[7,8]Though our patient kept herself confined to one partner, her husband had multiple partners. This scenario is reported to be one of the established risk factors involved in transmission of HPV.[9]

Microscopic picture was characteristic. The small basaloid cells arranged in nests, lobules and trabeculae are the hallmark of the tumour (Fig 2). Peripheral palisading around individual lobules was prominent in most areas, as described by numerous authors.[2,4,5]

This case was associated with high grade dysplasia of overlying epithelium, which was reported in pas smear as HSIL. This finding has also been reported before.[2,5]

The case under consideration had a prominent component of well differentiated squamous cell carcinoma as well. This association is variable; some other reports also mention such areas while others do not.[6,10] The pattern of comedonecrosis is a more frequent companion of the lesion, to the extent that some authors consider it to be "one of the main characteristics of the lesion".[4,5] The abrupt keratinization seen within islands of basaloid cells (Fig3) has also been noted previously.[4,11]

The differential diagnosis should include squamous cell carcinoma, basal cell carcinoma, adenoid cystic carcinoma, adenosquamous carcinoma, spindle cell squamous carcinoma, mucoepidermoid carcinoma, adenoid squamous carcinoma, small cell neuroendocrine carcinoma, and basosquamous cell carcinoma.[3,4,12]

The characteristic morphological features usually make this differentiation easy but if in doubt, multiple sections may be submitted to ensure accurate categorization. In certain cases, immunohistochemistry may come in handy to unveil the true nature of the neoplasm.[4,8]This differentiation is relevant because BSCC differs in biological behavior, prognosis and therapeutic strategy from the other listed entities.[3,12]

Conclusion

BSCC, an aggressive and fortunately rare, variant of squamous cell carcinoma is being reported in the uterine cervix. Although mixed with areas of typical squamous cell carcinoma, the characteristic histologic features usually make it easy for the histopathologists to spot the tumor. It should be reported in clear and unambiguous terms to ensure management of the patient along appropriate lines.

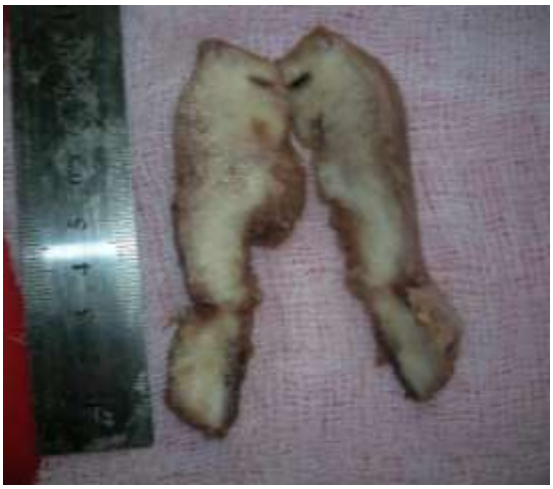

Figure 1: Cut surface of the specimen at level of maximum spread to show extensive myometrial involvement by the tumour.

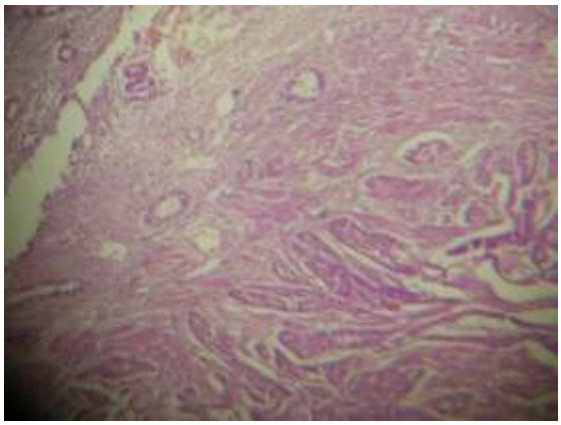

Figure 2: Small groups of basaloid cells in a trabecular pattern are seen extending close to but not involving the endometrial cavity. (H & E, x 100)

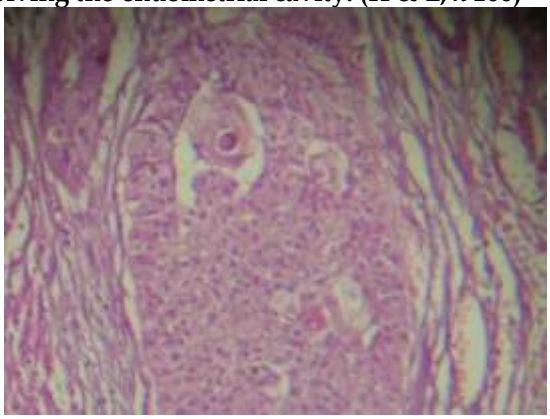

Figure 3: A small nest of basaloid cells showing central keratinization. (H & E, x 400)

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