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A Case Report and Literature Review of Verrucous Carcinoma of the Anus

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Authors' contributions

This work was carried out in collaboration between both authors. Both authors read and approved the final manuscript.

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Case Report

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ABSTRACT

Low-grade verrucous exophytic squamous cell carcinomas are uncommon. In 1948, Lauren identified a subtype of squamous cell carcinoma known as verrucous carcinoma (VC). Verrucous carcinoma develops rather slowly, and lymph node metastasis and distant metastases are uncommon. Local recurrences can be related to verrucous carcinoma. In most cases, verrucous carcinoma expands via direct extension. Here we present a case of 50 years male smoker who presented with perianal swelling. The patient underwent a biopsy and histopathology was suggestive of verrucous carcinoma with a focus on well-differentiated Squamous cell carcinoma. MRI pelvis done on 25.12.2021 was suggestive of large poorly marginated infiltrating mass lesion measuring 71x58x 42 mm centred in the skin and subcutaneous planes of left perianal region focally extending into left ischioanal fossa closely abutting the external sphincter at 3-4 0 clock position below the levator plane. No extension into inter sphincteric and supra levator area was seen. Enbloc excision of the perianal tumour with iliac and inguinal node dissection was done, the patient had recurrence after 1 year and repeat surgery was done, Post-surgery scans were suggestive of residual disease and locally advanced disease. The patient was subjected to chemotherapy and is now on follow-up.

Keywords: Verrucous carcinomas; squamous cell carcinoma; recurrence.

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1. INTRODUCTION

Verrucous carcinomas are rare, low-grade warty exophytic squamous cell carcinomas. Verrucous Carcinoma (VC) is a variant of squamous cell carcinoma discovered by Lauren in 1948 [1]. Verrucous carcinoma can be associated with local recurrences; It develops relatively slowly, and lymph node metastasis and distant metastasis are rare [2,3,4]. Verrucous carcinoma generally grows by direct extension. The most frequent sites for VC are the oral cavity, vulva, and foot [3-5], but there are a few reports of VC in the anus. Risks for the onset of VC include injury, burn, chemical stimulation, chronic inflammation, poor hygiene or incontinence, and HPV infection [6].Recent studies suggest that VC at other sites is not associated with human papilloma viruses (HPV) [7].

In the majority of cases, a little wart appears at first and grows bigger over several months. Depending on the size and amount of the local lesion involvement, the main complaints at the time of initial presentation can range from worry about atypical lesions, itching, and discomfort, to difficulty with everyday activities.

The initial treatment of verrucous carcinoma has almost always been surgical. The good results obtained have been accomplished in cases in which the lesion, although large, was extirpated with wide margins. However, recurrences are frequent [8]. Radiotherapy is not recommended due to the risk of iatrogenic anaplastic transformation as well as further regional and distant metastasis [9]. Here is a case of verrucous carcinoma of the anal canal which after getting operated had a recurrence and repeat surgery was done. Post-surgery scans were suggestive of residual and locally advanced disease. The patient was subjected to chemotherapy and is now on follow-up.

2. CASE PRESENTATION

A 50-year male smoker presented with perianal swelling in 2021. The patient underwent a biopsy and histopathology was suggestive of verrucous carcinoma with a focus of well-differentiated Squamous cell carcinoma.. MRI pelvis done on 25.12.2021 was suggestive of large poorly marginated infiltrating mass lesion measuring 71x58x 42 mm that was uniformly hypointense on T1W1 and mildly hyperintense on T2W1 centred in skin and subcutaneous planes of left perianal region focally extending into left ischioanal fossa closely abutting the external sphincter at 3-4 0 clock position below the levator plane.No extension into inter sphincteric and supra levator area was seen. The lesion was abutting focally the left gluteus maximus muscle with loss of intervening fat planes and solitary left inguinal node was present. PET CT was done on 3.01.2022 which was suggestive of metabolic active large, heterogeneously, enhancing, poorly marginated soft tissue density mass in the left perianal region infiltrating the anus, medial fibres of the left gluteal muscles with extension in the left ischioanal and ischiorectal fossa. Metabolic active few discrete lymph nodes noted in the left internal iliac, external iliac and inguinal regions suspicious of involvement. Remaining normal.

Sigmoidoscopy was done on 13 January 2022 which was suggestive of large exophytic fungating growth in the perianal region on the left side nearly 1 cm from the anal verge. Anal sphincter tone was normal. No evidence of rectal infiltration.USG guided fnac of left inguinal node was suggestive of reactive hyperplasia of the lymph node.
Enbloc excision of the perianal tumour with iliac and inguinal node dissection with loop colostomy (sigmoid colon) with lumbar flap was done. Histopathology done on 25/5/2022 was suggestive of T3NO verrucous carcinoma perianal region. The patient was on follow-up till 21/1/23 when he presented with the same symptoms. Cemri done on 24/3/23 suggestive of large infiltrative mass in left hemipelvis at operative bed with poor fat planes with prostrate and seminal vesicles and left lateral wall of urinary bladder,.left iliac node 19x12 mm and left inguinal soft tissue thickening 19x46 mm with surrounding fat stranding suggestive of deposits, communication with the distal end of the large bowel. Biopsy of post perianal flap on 28/3/2023 was suggestive of verrucous carcinoma... Extended laparotomy with excision of the distal (rectosigmoid) stump with debulking of the residual tumour with perineal dissection was done on 31/3/23. Histopathology done on 27/4/23 was suggestive of verrucous carcinoma.

CEMRI was again done on 2/5/23 which was suggestive of residual anorectal stump mass with large multilocular fluid collection or necrotic mass lesion in the left lateral pelvic wall extending to the gluteal region along piriformis muscle into the deep gluteal region on the ipsilateral side and, ischioanal obturator fossa. Diffuse cellulitis in perianal and gluteal region.Cect chest and abdomen were normal. The patient was then

referred to our department for further management. The case was discussed in the departmental meeting, it was decided to give chemotherapy because of advanced disease.The patient was given 3 cycles of chemotherapy cisplatin and 5 fluorouracil and is on follow-up.

3. DISCUSSION

Squamous cell carcinoma (SCC) variant verrucous carcinoma (VC) has unique clinical and pathologic characteristics. Contrary to how VC typically develops, which has an uneven, cauliflower-like look, the growth in our patient was infiltrative.

According to histopathology, VC has a papillary and scaly structure, is highly differentiated, and has extensive keratinization. It usually spreads outward. VC is identified immunohistochemically by a positive basal cell layer on Ki-67 staining which was reported by nishgami et al [10], while in our case tumour was also well differentiated with Squamous proliferation with a prominent endophytic component having blunt projections of Squamous epithelium with deep bulbous processes, pushing margin and keratinization. [Fig. 1] and cell smears also showed large polygonal squamous cells with abundant pink cytoplasm and enlarged nuclei with minimal nuclear atypia [Fig. 2].

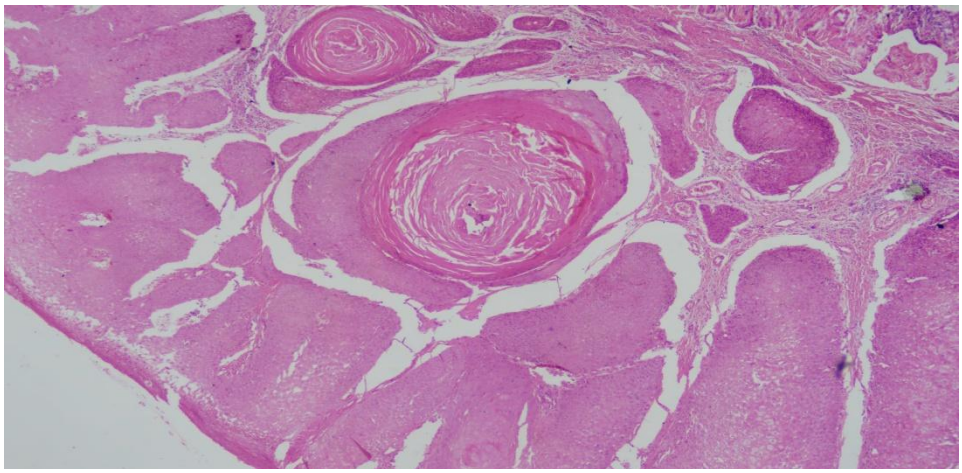

Fig. 1. Microscopic examination cellular smears show well differentiated squamous proliferation with prominent endophytic component having blunt projections of squamous epithelium with deep bulbous processes,pushing margin and keratinization

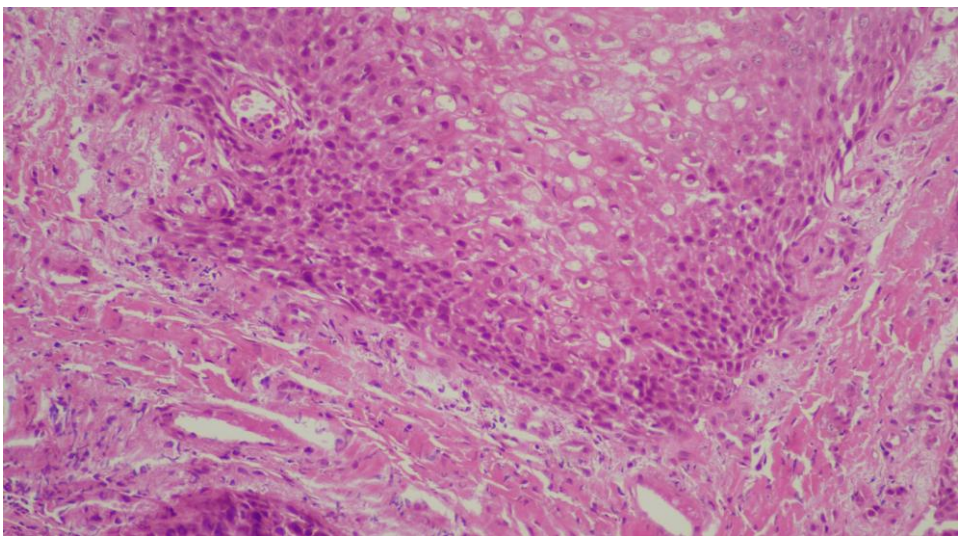

Fig. 2. Microscopic examination of cell smears show large polygonal squamous cells with abundant pink cytoplasm and enlarged nuclei with minimal nuclear atypia

For the treatment of VC, surgical resection of the tumour is preferred, and radiation therapy should be avoided due to the risk of malignant transformation [4,11,12]. After a local excision, a positive prognosis can be anticipated because VC develops extremely gradually and metastasis seldom happens. Given that the local recurrence in the current case happened soon after the initial excision, it is critical to ensure negative surgical margins during the removal of the tumor by incorporating intraoperative rapid pathological diagnosis. This will guarantee complete eradication of the VC and reduce the risk of recurrence.

In this case, excision was done before admission to our department, which also sets limitations to the study. However, we believe that early recognition of VC is crucial to prevent the late effects of such tumours.

4. CONCLUSION

An uncommon, locally aggressive tumor is VC. It is advised to completely remove the VC surgically. When treating locally advanced, incurable diseases, various treatment methods including chemotherapy or radiotherapy may be employed to prevent mutilating surgical operations. We documented a case of VC in the anus of a patient who had perianal edema that returned following en-bloc tumor resection. To reduce the chance of VC recurrence, it is essential to verify during surgical resection that the margins are removed by local excision.

CONSENT

As per international standard or university standard, patients' written consent has been collected and preserved by the author(s).

ETHICAL APPROVAL

As per international standard or university standard written ethical approval has been collected and preserved by the author(s).

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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