

## Recurrent Perianal Squamous Cell Carcinoma in a Retroviral Patient

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### Abstract

**Background:** Anal squamous cell carcinoma is a cancer strongly associated among the immunocompromised and those infected with Human Papilloma Virus. We present a case of locally advanced recurrent anal cancer in a retroviral disease patient and the treatment planning involved in managing this patient.

**Case presentation:** In this report, we present a 51 years old male with retroviral disease, presenting with recurrent perianal squamous cell carcinoma. We decided to excise the lesion as he has no systemic metastasis combined with plastic and reconstructive team.

**Conclusion:** Surgical resection can be offered in patient with recurrent anal squamous cell cancer with no systemic metastasis.

**Keywords:** Anal squamous cell carcinoma; Recurrent anal cancer; Retroviral disease.

### Introduction

Anal cancer only constitutes 4% of all the cancers of lower gastrointestinal tract. The main etiology is infection with human papilloma virus (HPV). Patients infected with Human Immunodeficiency Virus (HIV) is an independent risk factor in developing anal cancer. The increasing trend of patients with squamous cell carcinoma (SCC) of anus is a reflection of high prevalence of HPV in the population. This is a case of a retroviral positive patient developing local recurrence of SCC 4 years following local resection of anal growth and chemoradiotherapy. Patient underwent Laparoscopic assisted abdominoperineal resection with wide excision of perineum and V-Y advancement flap construction.

### Case report

We describe a case involving a 51 years old male retroviral positive patient on HAART therapy presenting with an anal growth back in 2017. Local excision of the growth was taken on initial suspicion of anal warts. His histopathological (HPE) was reported as anal squamous cell carcinoma with involved margin. He underwent chemotherapy combined with high dose radiotherapy. Following that his surveillance Contrast En-

hanced Computed Tomography (CECT), colonoscopy and regular per rectal assessment showed no evidence of recurrence.

He presented 3 years later with recurrence of swelling over his perianal region. This time around the tumour was infiltrating into his anal canal, perineum and left hemi-scrotum (Figure 1). He was complaining of incontinence and severe pain over his perianal area. A repeat biopsy confirmed recurrence of squamous cell carcinoma. Clinically he also had palpable left inguinal lymph nodes. Staging Pelvic Magnetic Resonance Imaging (MRI) with staging CECT showed patient had enlarged left inguinal lymph nodes with no distant metastasis. Tumour was seen infiltrating into the anal canal (Figure 2); marked with arrow). Case was discussed in Multi-Disciplinary Oncology team and decision made for wide excision of the lesion. Pre operative planning to combine his surgery with the Plastic and Reconstructive team. We had a discussion with the infective diseases team to enquire on patient's retroviral viral load and his fitness for surgery. His pre operative CD 4 count was 400 cells/mm<sup>3</sup>.

Patient underwent Laparoscopic assisted abdomino perineal

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resection, wide excision of peri anal tumour and V-Y plasty to achieve closure of wound (Figure 3, Figure 4, and Figure 5). Patient discharged home well on day 5 post operatively. We reviewed him 2 weeks following surgery, his wound healed well and patient was very happy. He has returned back to his work. He is on surveillance now with 3 monthly clinical assessment and annual CECT.



Figure 1

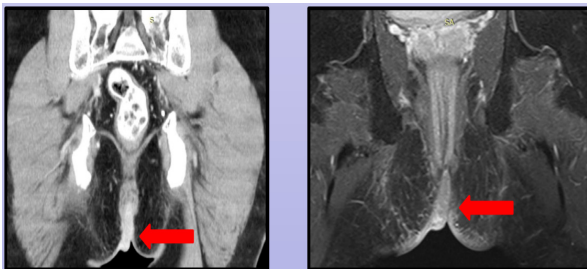


Figure 2



Figure 3: Post Excision



Figure 4: Resected specimen



Figure 5

## Discussion

Incidence of anal cancer has increased with incidence rate 2.9% higher compared to decade if 1992 to 2001 [1] but it only constitutes 4% of all cancers of alimentary tract. The rise in the cases maybe due to increased in number of people infected with Human Papilloma Virus which is an important risk factor in developing anal cancer. Studies have also showed that people living with HIV have 15 to 35-fold increased risk of developing anal cancer compared to general population [1]. There is a paradigm shift in the way we treat anal cancer. Formerly upfront abdominoperineal resection was offered to all these patients which showed 5-year mortality was as high as 70% [2]. Preoperative treatment with 5 FU with mitomycin with radiotherapy offers almost disease remission in all anal cancer patients. Upfront resections for cancers confined to the anal margin measuring < 2cm and not in the anal canal or involving the anal sphincters is still an acceptable treatment [4]. Locoregional failure rate post CCRT is between 10% to 30% [1].

Today, primary abdominoperineal resection is offered in patients with disease recurrence after chemoradiotherapy or patients who previously already received a high dose pelvic radiotherapy. Factors to consider before offering surgery in HIV patients with recurrence will be to assess the tumour burden, involvement of adjacent pelvic organs, evidence of metastasis, functionality score and also HIV viral load and CD4 level. Studies have shown that risk of surgery in an early HIV positive patient is equal as compared to the general population [2].

Several factors which have been found to increase operative mortality in HIV patients, namely emergency surgery as opposed to elective, high American Society of Anaesthesiologist (ASA) risk class, operation in contaminated field i.e., anorectum and physiologically demanding surgery. Studies have also shown value of viral loads and CD4 counts (alone or combination) in predicting operative mortality did not produce conclusive results [5]. Our patient was medically fit and is compliant to his HAART treatment. His pre-operative CD 4 count was 400 cells/mm<sup>3</sup>.

Decision made to offer surgical resection of the recurrence as patient has already received high dose radiotherapy to pelvis 3 years ago. The tumour was also bleeding and patient was in pain and much discomfort. Tumour has encroached his skin over perineum, left hemiscrotum and left groin. However, deeper structures were not involved sparing his urogenital organs. Laparoscopic assisted abdominoperineal resection was done along with wide excision of tumour over all involved areas with good margin. Wound closure was achieved by a right medial thigh V-Y fasciocutaneous advancement flap. His HPE had clear surgical margin. He is on surveillance 3 monthly assessment and annual CECT pelvis.

## Conclusion

Anal squamous cell cancer is a very chemoradio sensitive tumour, giving good clinical response post therapy. The introduction of HPV immunization among HIV positive individuals are still under discussion to reduce the risk of developing

squamous cell anal cancer. Proper pre-operative multidisciplinary discussion is vital to offer the best treatment for these group of patients. We will need to avoid prejudice and defying these group of patients from proper surgical treatment solely based on their possible immunocompromised state. The way forward in managing this patients is in-line now with the introduction of immunotherapy i.e Nivolumag, Prembralizumab.

#### **Declaration**

Ethics approval was waived in view of the nature of study as a case report

Consent for publication: Consent was obtained from patient.

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