

## Case Report

# Squamous Cell Carcinoma of the Anal Canal –A Series of Two Cases

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## Abstract

Squamous cell carcinoma of the anal canal is a rare cancer and accounts for about 75% of all cancers of the anal canal. The most frequent symptom is bleeding per rectum, anal pain, and rectal mass. The diagnosis requires clinical examination, palpation of the inguinal lymph nodes, high resolution anoscopy, core biopsy of anal mass, computed tomography or magnetic resonance imaging, evaluation of the pelvic lymph nodes. The standard treatment is chemoradiation. We review here two cases of Squamous cell carcinoma of anal canal and review literature.

**Keywords:** Squamous cell carcinoma; Anal canal; Nigro protocol

## Introduction

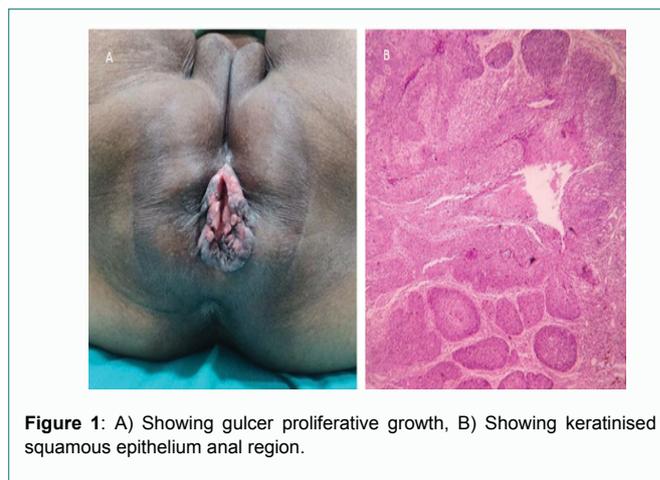
Carcinoma of the anal canal represent 0.43% of all malignancies and 2% of the GI malignancies. Overall, the most prevalent cancer of the anal canal is squamous cell carcinoma (85%), followed by adenocarcinoma (10%). The other types are rare, representing less than 5%. Anal canal cancer has been increased by 50% over the past 25 years. Its annual incidence has been of 1 in 100,000 people, and is higher in women. Chemoradiation remains the mainstay of treatment surgery may still be required in recurrent disease and for palliative treatment. Here we report two cases of Squamous cell carcinoma of anal canal and review literature.

## Case Presentation

### Case 1

A 70 year old lady came to surgery outpatient department with chief complaints of bleeding per rectum and ulceroproliferative in the anal region for past 3 months. Ulceroproliferative growth was progressing in size and was associated with itching. She has no significant past medical history or surgical history. On examination a verrucous surfaced cauliflower like growth in the anal region of size 6 cm × 5 cm was noted (Figure 1), Pt had no inguinal lymphadenopathy. Under local anaesthesia a biopsy was taken which showed Keratinised stratified squamous cell with focal ulceration and pleomorphic hyperchromatic nuclei with stromal invasion, chronic inflammatory changes suggestive of moderately differentiated squamous cell carcinoma. CECT Abdomen with positive rectal contrast done

showed malignant polypoidal lesion of about 5 cm length arising from anal canal with no metastasis. Patient was started on Nigro Regimen (Chemoradiation).



**Figure 1:** A) Showing gulcer proliferative growth, B) Showing keratinised squamous epithelium anal region.

### Case 2

A case of 65 yr old male came to surgery OPD with chief complaints of bleeding per rectum and ulcerative growth in the anal region for past 6 months. The growth was progressing in size and was associated with itching. There is no significant past medical history, surgical history. On examination an ulcer in the anal region of size 7 cm × 6 cm × 1 cm is noted with surrounding induration. Right inguinal lymphadenopathy noted. MRI Pelvis done showed heterogenous lesion with mural thickening postero-lateral walls, likely neoplastic primary of malignant etiology of anal canal with pelvic nodal metastases. Under local anaesthesia edge wedge biopsy was taken from the growth which showed stratified squamous epithelium with focal ulceration and dysplasia with infiltrating neoplasm suggested as moderately differentiated squamous cell carcinoma. FNAC of right inguinal node done showed metastatic carcinomatous deposit. Patient was started on nigro Regimen.

## Discussion

Squamous cell carcinoma of the Anal canal is a rare cancer

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and accounts for about 75% of all cancers of the anal canal. The most prevalent cancer of the anal canal is squamous cell carcinoma (85%), followed by adenocarcinoma (10%) [1]. There are two distinct categories of tumors arising in the anal region. Tumors that develop from mucosa (columnar, transitional, or squamous) are true anal canal cancers tumors that arise from skin or distal to the squamous mucocutaneous junction are termed anal margin tumors. Squamous cell carcinoma of the anus is rare and least prevalent gastrointestinal malignancy and accounts for only 1% to 2% of all large bowel malignancy. Ratio of 1:2 for men to women with median age at diagnosis is 60 yrs. Risk factors include Human papilloma virus infection, HIV infection, multiple sexual partners, receptive anal intercourse, female gender, and history of cervical, vulvar, or vaginal carcinoma, smoking, crohn's disease. Precancerous lesions includes Anal Intraepithelial Neoplasia (AIN) which describes the dysplastic changes in the anal canal that are precursors to invasive anal carcinoma and are classified as grade I-III [2].

The most common presenting symptom is bleeding per rectum, ulcerative growth with or without discharge, pruritis, and severe pain with faecal incontinence in later stage. However, 20% of patients are asymptomatic at diagnosis [1]. The diagnosis requires digital rectal examination and proctoscopy. The gynaecological examination is an important procedure for female patients, in order to evaluate vaginal involvement. MRI is useful for assessment of loco-regional disease, can obtain information on the size of the tumor, invasion of adjacent organs. Chest and Abdominal CT done in order to detect any nodal spread, distant metastases, used for staging. PET/CT is useful in localization of small anal tumour less than 2 cm, also used to stage and see any residual tumour and recurrence. Rectal Endoscopic Ultrasound (RUS) has been beneficial in the staging of anal carcinoma. Rectal ultrasound has also been useful in examining for tumor invasion in the surrounding regional organs evaluating the bladder, seminal vesicles, prostate, and internal anal sphincters / external anal sphincters, useful in the pre-operative staging of rectal and anal carcinomas [3-5].

The gold standard treatment for stage I-III disease remains the Nigro protocol (Figure 2) first described in 1974. Stage I disease not involving sphincter may be treated with local excision. Distant disease is treated with systemic chemotherapy with radiation reserved for locoregional symptoms. Careful surveillance is mandatory after completion of chemoradiation. Salvage abdominoperineal resection can achieve locoregional control in up to 77% of patients with persistent or recurrent disease. Morbidity is high, mostly owing

to wound complications, and as such a flap reconstruction of the perineum is warranted (Table 1).

Nigro protocol for stage 0 (Figures 3 and 4), local resection of lesion done. For stage 1 and 2, Surgery (local resection) followed by chemotherapy and external beam radiotherapy (for 5 to 7 weeks) is usually given. After 6 months of follow up if residual diseases present then salvage abdominoperineal resection was done. For stage 3 a, b, c chemotherapy combined with radiotherapy is given, after 6 months of therapy salvage abdominoperineal resection is most commonly required. Stage 4, unlikely to cure the disease, aimed for palliative Chemoradiation [3].

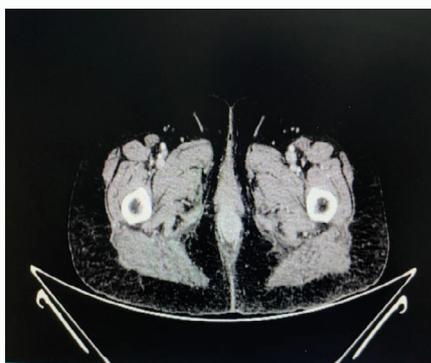
Newer advances like anti EGFR and biological therapy such as cetuximab and Panitumumab. Immunotherapy also used. Monoclonal antibodies such as pembrolizumab, Nivolumab and Atezolizumab are also used now days [6]. Surveillance of patients who completed Chemoradiation, start follows up from 8 to 12 weeks after therapy. Patient in complete remission follow up every 3 to 6 months for 5 years with MRI & digital rectal examination.

**Table 1:** Modified Nigro Protocol For Stage 1, 2, and 3.

TREATMENT	DOSE	SCHEDULE
5-FLUOROURACIL	1G/m <sup>2</sup> /day	Start day 1 and continue for 4 days repeat 4 day infusion starting day 28
MITOMYCIN C	10-15 mg/m <sup>3</sup> IV bolus	Day 1 only
EXTERNAL RADIATION THERAPY	50 Gy to primary tumour. 35-45 Gy to inguinal nodes	Start day 1 and deliver 2 Gy / day, 5 days /wk for 5 wk



**Figure 3:** Showing ulcerative growth of anal region.



**Figure 2:** CECT abdomen showing tumor growth in anal canal (arrow).



**Figure 4:** MRI Pelvis & CECT Abdomen showing growth involving anal canal (arrow mark).

## Conclusion

Squamous cell carcinoma of the Anal canal is a rare cancer. The gold standard treatment for stage I-III disease remains the Nigro protocol. Distant disease is treated with systemic chemotherapy with radiation therapy for locoregional disease. Careful surveillance is mandatory after completion of chemoradiation. Salvage abdominoperineal resection is necessary in patients with persistent or recurrent disease. Morbidity is high due to wound complications.

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