

## Chemoradiation for anal squamous cell carcinoma: case report

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**SUMMARY:** Chemoradiation for anal squamous cell carcinoma: case report.

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**Introduction.** Anal squamous cell carcinoma is rare and seems to be associated with chronic inflammatory conditions, infections and immunosuppression. Their incidence has been arising since the last 25 years. Compared to adenocarcinoma of the rectum and squamous cell cancer of the anal canal, squamous cell carcinoma is a distinct entity with a different etiology, pathogenesis, prognosis and requires a different therapeutic approach. Even if surgery remains the main therapeutic option, recent advances have made chemoradiation a valuable therapeutic addition. This case discuss the efficacy of chemoradiation which can prevent complications and can improve the quality of life.

**Case report.** A 63-year-old woman presented with history of bloody stool for the last past month. The colonoscopy showed a 2 cm circular lesion on the posterior wall of the anal canal. Biopsy was positive for squamous cell carcinoma and afterwards the patient underwent chemoradiation. At 1 year of follow-up the patient is disease free, with a good sphincter control and had no late complications.

**Conclusion.** Since the first studies in 1974, chemoradiation seems to be a good option for most patients with squamous cell carcinoma avoiding surgery.

**RIASSUNTO:** Trattamento combinato radio-chemioterapico per il carcinoma squamocellulare dell'ano: caso clinico.

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**Introduzione.** I carcinomi squamosi del canale anale sono rari, rappresentando il 3-5% dei tumori coloretali, e sono associati a condizioni infiammatorie croniche, infezioni e immunosoppressione. La loro incidenza è aumentata negli ultimi 25 anni. I carcinomi squamosi cellulari del retto si presentano con etiologia, patologia e prognosi diverse dall'adenocarcinoma e richiedono pertanto un approccio terapeutico differente. Sebbene il trattamento chirurgico rappresenti la principale opzione terapeutica, recenti studi hanno dimostrato l'efficacia del trattamento radio- e chemioterapico concomitanti, soprattutto in relazione alle complicanze ed alla qualità della vita del paziente.

**Caso clinico.** Presentiamo il caso di una paziente di 63 anni giunta alla nostra osservazione circa un mese dopo l'esordio della sintomatologia. La colonoscopia ha evidenziato una lesione circolare di 2 cm localizzata sulla parete posteriore del canale anale. È stata eseguita una biopsia della lesione che è risultata positiva per carcinoma squamocellulare. La paziente è stata sottoposta a cicli di radioterapia e chemioterapia concomitanti. Dopo 1 anno di follow-up la paziente ha mantenuto la funzionalità dello sfintere anale e non manifestava complicazioni o recidiva di malattia.

**Conclusione.** Allo stato dell'arte la radioterapia e la chemioterapia in combinazione rappresentano una valida alternativa per il trattamento conservativo del carcinoma squamocellulare dell'ano.

**KEY WORDS:** Squamous cell carcinoma - Chemotherapy - Radiation therapy.  
Carcinoma squamoso cellulare - Chemioterapia - Radioterapia.

### Introduction

Anal squamous cell carcinoma (SCC) is a rare malignancy (1) representing 3 to 5% of lower gastrointestinal malignancies (2). They are associated with chronic inflammatory conditions, infections like human papillomavirus (particularly HPV 16), Herpes simplex 2 for women, and immunosuppression conditions (human

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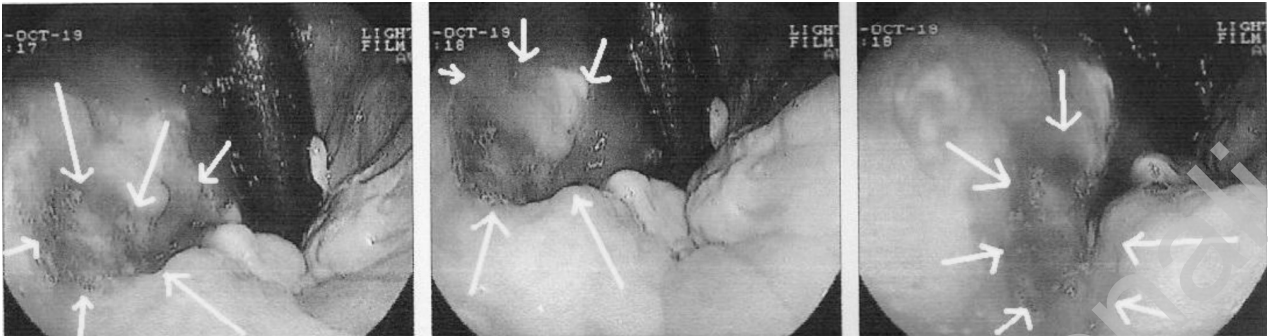


Fig. 1 - The tumoral ulcerative lesion is found 2-3 cm to the anal verge.

immunodeficiency virus and renal or cardiac allograft transplant patients) (3). Other risk factors are cigarette smoking and anal intercourse (4).

We describe the case of a squamous cell carcinoma treated with chemoradiation.

## Case report

A 63-year-old woman came to our Department with a history of bloody stool for the last month. The routine laboratory studies were normal. Colonoscopy revealed a 2 cm semi-circular, ulcerated mass on the posterior wall of the anal canal astride the dentate line (Fig. 1). Biopsy showed moderately differentiated squamous cell carcinoma (Fig. 2). All tumor markers (SCC, CEA, CA19-9) were negative. A computed tomography (CT) scan of the abdomen and pelvis showed no metastasis and bilateral inguinal lymph nodes not swollen. There was no mass and no invasion in the anal canal (Fig. 3). Chest radiography also was normal. The tumor was therefore classified T2N0M0, Stage II (UICC, TNM classification, 1997).

The patient underwent chemoradiation therapy. Radiation was dosed by 4,500 cGy for 6 weeks and uninvolved inguinal nodes routinely received 4,500 cGy using mixed photon and electron beams. Chemotherapy regimen consisted of 5-FU (1,000 mg/m<sup>2</sup> per day for 4 days and for 2 cycles) and mitomycin (10mg/m<sup>2</sup> IV for 2 cycles). The patient reported after the first cycle perianal skin erosion (not severe) and diarrhea.

Six months after the chemoradiation treatment, our patient was disease free, with a good anal sphincter control. After 12 months of follow-up no local recurrence is present.

## Discussion

Anal cancer has increased during the last years (2), especially in HIV-positive men where they seem more likely to develop anal high-grade squamous intraepithelial lesions than HIV-negative men (5,6).

One of the major problems is that SCC hasn't any specific presentation and most of the patients tend to come with advanced stage disease. In fact, 20% of the patients have no symptoms at the time of the diagnosis (4,7). Usual symptoms are perianal bleeding, rectal pain and/or mass sensation, pruritus, burning and anal discharge and may present red eczematoid lesions. Diagnosis

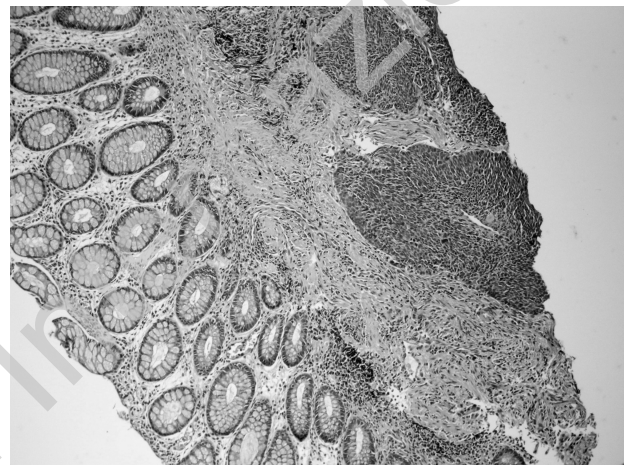


Fig. 2 - Histopathology of squamous cell carcinoma of the anal canal

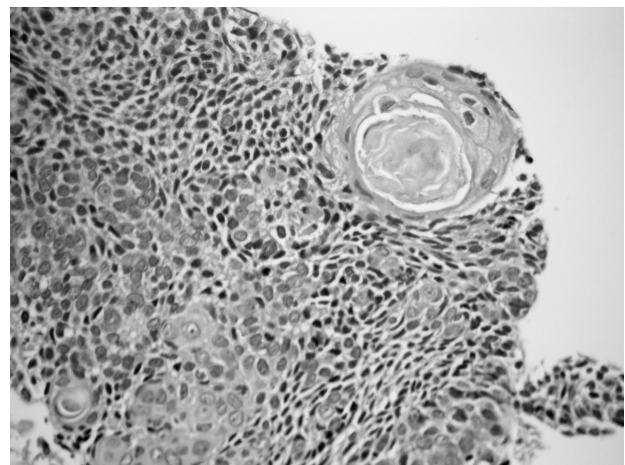


Fig. 3 - Histopathology anal squamous cell carcinoma; cytoplasmic vacuoles and extensive cell pattern.

is done with Pap smear for cytology with a range of sensitivity of 50-80% (4), endoscopic examination and biopsy of the lesion.

Even if surgery remains the gold standard for the treatment of SCC it has a high recurrence rate and high risk

complications such as nerve injuries, anal sphincter damage and recurrency of the disease which increase with HPV-16 and HPV-18 infections (8) and this is one of the reasons why today most of the patients should be treated with CMT (combined modality therapy).

The Radiation Therapy Oncology Group/Eastern Cooperative Oncology Group Trial (9) stated that the regime of chemoradiation for patients with anal squamous cell carcinoma consists of 50 Gy of pelvic radiation and 2 cycles of 5-FU at 1000 mg/m<sup>2</sup>/day for 4 days plus MMC (mitomycin C) 10mg/m<sup>2</sup> per dose for two doses, as with did with our patient.

Chemoradiation may have complications such as diarrhea, mucositis, skin erythema and desquamation and myelosuppression. Late complications include anal ulcers, stricture/stenosis, fistulae and necrosis in the range of 3-16% (10). Radiation therapy is effective for squamous cell carcinoma but not for adenocarcinoma, where surgical treatment should be primary.

Chemoradiation should also be evaluated as a good alternative option, especially for patients with recurrent disease (11), and since the introduction of Nigro et al

in 1974 (12,13) of CMT, surgery is not any longer the initial component of the treatment avoiding in this way permanent stoma and having equivalent outcomes compared with abdominoperineal resection (APR) (2,14). APR is now as a salvage therapy for the patients with persistent disease after combined chemoradiation.

## Conclusion

With chemoradiation our patient has improved the quality of her life, did not have major complications, preserved her normal anal sphincter function and has no recurrence of the disease 12 months after the radiation treatment. Sphincter-preserving therapy is possible in patients presenting with Stage II anal canal SCC. We strongly think that advances in CRT will likely supplant surgery as the primary intervention.

## Disclosure of potential conflicts of interest

The authors indicate no potential conflicts of interest.

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