Adenocarcinoma of the Anal Canal: A Rare Case Report

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ABSTRACT

Anal canal cancer represents only 1-2% of colorectal cancers. Adenocarcinoma is a rare histological type of anal cancer. The distinction between anal and rectal adenocarcinomas determines the therapeutic indication. Analysis of all morphological, immunophenotypic and clinical criteria makes it possible to determine the anal or rectal origin of the tumor. Imaging is important for the diagnosis. It gives a precise analysis of the tumor extension to guide therapeutic management. Pelvic MRI allows loco-regional extension and evaluates loco-regional lymph node involvement. The treatment is based on the radiochemotherapy combination.

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Introduction

Anal adenocarcinoma is a rare tumor. The diagnosis is often made at an advanced stage given the late consultation of patients. The differential diagnosis arises mainly with rectal adenocarcinoma who have different therapeutic management.

The treatment of anal canal cancer has evolved in recent years, it is the only tumour whose previously surgical treatment has essentially become radiotherapy and a concomitant combination of radiation chemotherapy [1, 2].

Case report

A 47 years old man, chronic smoking, presented in for anal pain and minimal rectorrhagia evolving since 4 months. Digital rectal exam revealed anal lesion lateralized to the left measuring 4.5 cm.

The colonoscopy revealed a left supra-anal circumferential ulcerative lesion extending 5 cm whose biopsies were in favor of adenocarcinoma of the anal canal (figure 1).

Figure 1. Submucosal neoplastic gland component in ADC of the anal glands.

A pelvic MRI showed an irregular hemi circumferential lesion of the anal canal extended to the lower rectum measuring 5.5 cm in height, hypointense on T1 weighted sequences, with intermediate signal on T2 WS, hyperintense on diffusion WS with low ADC, enhanced after gadolinium injection (Figure 2).

Figure 2. Pelvic MRI on T1 WS (a), T2 WS (b), T1 FS after gadolinium injection (c, d) and diffusion (e) showing an irregular hemi circumferential lesion of the anal canal extended to the lower rectum measuring 5.5 cm in height, hypointense on T1 WS, with intermediate signal on T2 WS, hyperintense on diffusion WS with low ADC, enhanced after gadolinium injection (arrow).

A chest and abdominal pelvic CT was performed for the extension assessment which showed the anal canal tumor without distant metastasis (figure 3). At the end of this assessment, the tumor was classified T3N0M0. The patient received radiotherapy with concomitant chemotherapy in three cycles of 5-fluorouracil and mitomycin with good clinical evolution.

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At the end of the assessment, the TNM classification must be established to guide therapeutic management [3,5]:

**Primary tumor (T)**
- T0 No evidence of primary tumor.
- Tis High-grade squamous intraepithelial lesion.
- T1 Tumor ≤ 2 cm.
- T2 Tumor > 2 cm but ≤ 5 cm.
- T3 Tumor > 5 cm.
- T4 Tumor of any size invading adjacent organ(s), such as the vagina, urethra, or bladder.

**Regional lymph nodes (N)**
- N0 No regional lymph node metastasis
- N1 Metastasis in inguinal, mesorectal, internal iliac, or external iliac nodes
- N1a Metastasis in inguinal, mesorectal, or internal iliac lymph nodes
- N1b Metastasis in external iliac lymph nodes
- N1c Metastasis in external iliac with any N1a nodes

**Distant metastasis (M)**
- M0 No distant metastasis
- M1 Distant metastasis cannot be assessed
- MX Distant metastasis cannot be assessed

The treatment is based on the radiochemotherapy combination which has demonstrated good results. Surgery is indicated in case of failure of the radiochemotherapy combination or exclusive radiotherapy, and in case of complications [6].

**Conclusion**

The distinction between anal and rectal adenocarcinomas determines the therapeutic indication. Indeed, the glandular neoplasms of the anal glands are much more radiosensitive than the lieberkuhnian adenocarcinomas of rectal origin. Analysis of all morphological, immuno phenotypic and clinical criteria makes it possible to determine the anal or rectal origin of the tumor.

**References**