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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, immuno phenotypic 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 radio chemotherapy combination.

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 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 4,5cm.

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

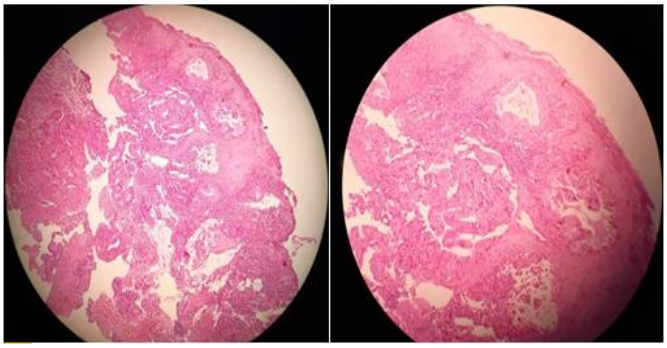

Figure 1. Submucosal neoplastic gland component in ADC of the anal glands.

A pelvic MRI showed an irregular hemi circumferential lesion of the anal canal extended to the lower rectum measuring 5.5cm 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).

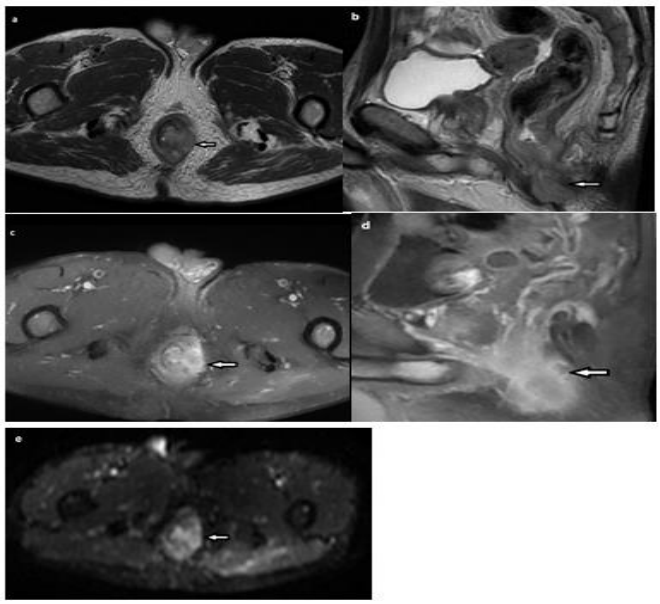

Figure 2 . Pelvic MRI on T1 WS (a), T2 WS (b), T1 FS after gadolinium injection (c, d) and diffusion € showing an irregular hemi circumferential lesion of the anal canal extended to the lower rectum measuring 5.5cm in height, hypointense on T1 ws, with intermediate signal on T2 WS, hyperintense on diffusion 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 – fl uroro-uracil and mitomycin with good clinical evolution.

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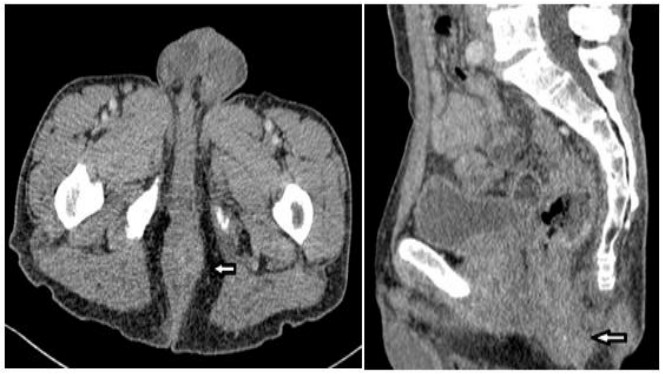

Figure 3 . abdominal CT scan after contrast injection at the portal phase on axial and sagittal sections showing the anal tumor with irregular contours (arrow).

Discussion

Anal canal cancer is a rare tumor, it represents only 1-2% of colorectal cancers.

The majority of cases are epidermal carcinomas (85%). Adenocarcinoma represents only 7-9% of anal canal cancers. It develops from the glandular mucosa that covers the entire upper part of the anal canal. The diagnosis of this histological type is difficult and presents a differential diagnosis with rectal adenocarcinomas with anal extension [1,2].

There are three types of adénocarcinoma determined by their origin: the superior part of the anal canal, derived from anal ducts or glands an adenocarcinoma associated with chronic anorectal fistulae.

Rectorrhagia is the main clinical symptom. Physical examination is based on the digital rectal exam which makes it possible to locate the tumor.

Anuscopy or rectoscopy allow biopsies of the tumor with histological study.

Imaging is important for the diagnosis. It gives a precise analysis of the tumor extension to guide therapeutic management [3].

Pelvic MRI allows loco-regional extension and evaluates loco-regional lymph node involvement.

The tumor presents with low signal intensity on T1 weighted sequence, high to intermediate signal intensity on T2 weighted sequences, high signal intensity on diffusion sequences with low ADC and contrast enhacement. It can be infiltrative or have intralumina development with lobulated annular or semiannular shape [3,4].

In case of anal cancer extented to the lower rectum, it is difficult to distinguish it from rectal cancer. When the epicenter of the tumor is located below anorectal junction, it is more likely to be an anal cancer.

Endoscopic ultrasound specifies the thickness of the tumor, the invasion of the different parietal layers and search for perirectal lymphadenopathy to establish the ultrasound TNM classification US-TNM (tumour “T”, lymph node “N”, metastases “M”) [5].

The chest and abdomino pelvic CT allows to make an assessment of lymph extension and distant metastases.

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)

MX Distant metastasis cannot be assessed
M0 No distant metastasis
M1 Distant metastasis

The treatment is based on the radio chemotherapy combination which has demonstrated good results. Surgery is indicated in case of failure of the radio chemotherapy 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.

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