Anal abscess revealing rectal cancer: case report

Authors' contributions This work was carried out in collaboration among all authors. All authors read and approved the final manuscript.

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ABSTRACT

Anal abscesses or fistulas as an initial presentation of cancer are exceedingly rare. This delay in diagnosis often results from an initial presumption of benign conditions, leading to advanced tumor stages upon initial detection. The scarcity of such cases has resulted in the absence of established treatment guidelines for anorectal cancers that manifest as abscesses or fistulas.

In light of this, we present our experience in managing a case of adenocarcinoma that was identified in association with persistent inflammation stemming from a chronic anal fistula. The patient, a 52-year-old individual with a history of recurrent anal fistulas, underwent abdominoperineal amputation as part of the treatment journey. Within the context of this case, we emphasize and discuss the clinical presentations, assessments, and therapeutic strategies applicable to individuals in similar situations.

Keywords: [rectal cancer ,Anal abscess , Emergency , Tumor }

1. INTRODUCTION

Anal abscesses or fistulas as a presentation of malignancy are relatively rare occurrences. Often, due to the initial assumption of a benign condition, there can be a delay in diagnosis, resulting in advanced stages of tumors upon initial detection. The scarcity of cases like these has resulted in a lack of established treatment guidelines for anorectal cancers that initially manifest as abscesses or fistulas [1]. In this context, we aim to share our experience in managing a case of adenocarcinoma that was discovered in association with persistent inflammation resulting from a chronic anal fistula. Our goal is to emphasize and discuss the clinical presentations, assessments, and therapeutic approaches relevant to such cases [2].

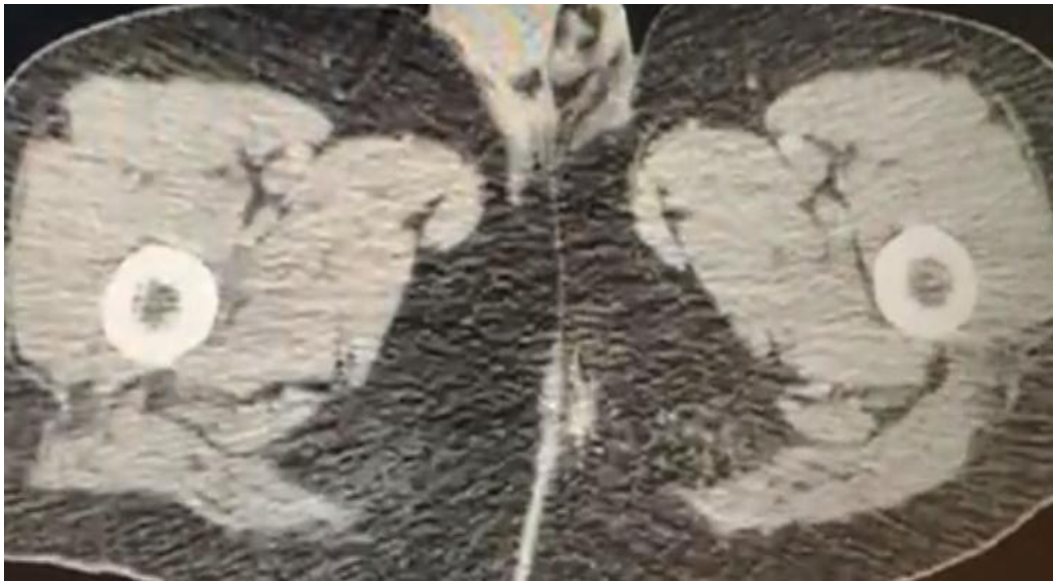
PRESENTATION OF CASE

We present the case of a 52-year-old patient with a history of diabetes treated with metformin, who had undergone three previous operations for recurrent anal abscesses. During the most recent operation, a seton drain was placed, which remained in place for six months but was not well-tolerated by the patient. The patient sought medical attention at the emergency department, complaining of anal pain and perianal erythema, persisting for three months. The patient initially interpreted these symptoms as a recurrence of his abscess and hesitated to seek medical help due to the fear of further surgery.Upon admission, the patient's vital signs were stable. Examination revealed a scar with two horseshoe-shaped external orifices, connected to the old fistula, located at 11 o'clock and 2 o'clock (Figure 1).

FIGURE N°1 : PREOPERATIVE IMAGE SHOWING THE CLINICAL PRESENTATION

Adjacent to this area, a 3cm ulceration with irregular margins and a necrotic base, which was discharging pus, was observed. On palpation, a fixed ulcerative mass was identified, located 5 cm from the anal margin.

Figure N°2 : Axial scan section showing the fistulous path



A complete colonoscopy was performed, revealing a tumor in the lower rectum, with no evidence of tumors elsewhere in the colon. Biopsies of the tumor were obtained, and subsequent histopathological analysis confirmed the presence of a moderately differentiated adenocarcinoma. A TAP extension study was conducted, indicating local invasiveness (Figures 2 and 3)

The patient underwent neoadjuvant radiochemotherapy followed by abdominoperineal amputation, resulting in a favorable outcome with no signs of recurrence during a 2-year follow-up period..

3. DISCUSSION

Historically, the first report of cancer implantation within an anal fistula was made by Guiss et al. in 1954 [4]. In most cases, anal fistulas are attributed to non-specific cryptoglandular infections, with a lesser association with inflammatory bowel disease, infections (such as actinomycosis, tuberculosis, lymphogranuloma venereum, human immunodeficiency virus), trauma, surgery, malignancy, and irradiation [3].

Colorectal cancer ranks as the second leading cause of cancer-related deaths worldwide. This malignancy is known for its potential to metastasize to the liver, lungs, and locally recur.

In some exceptional cases, colorectal cancer can metastasize to unusual sites, including implantation within an anal fistula tract, as seen in our patient [4].

Cancer within an anal fistula can manifest in two forms: carcinoma originating in a chronic anal fistula and the implantation of rectal or colon cancer cells within an anal fistula [6].

Early diagnosis of this condition is challenging in most patients. Symptoms often mimic benign inflammatory conditions of the anorectal region, leading to delayed diagnosis, and biopsies may initially fail to reveal infiltrating carcinoma [5].

A histological diagnosis is imperative for confirmation and initiation of treatment. Given that some anal adenocarcinomas exhibit mucinous features, superficial biopsies may be insufficient, as these mucinous tumors often form mucin lakes in the submucosa and muscularis propria layers [2].

Histopathologically, fistula-associated anal adenocarcinomas describe a subpopulation of adenocarcinomas involving the anal canal with histogenetic relations to anal glands or transitional and rectal-type epithelium. These carcinomas are typically mucinous in nature [7].

A multidisciplinary approach is recommended following confirmation of the diagnosis due to the complexity of the condition. Neo-adjuvant chemoradiotherapy has shown promise in managing this condition [2].

For resectable tumors, surgery, particularly abdominoperineal resection (APR), is considered the preferred treatment for fistula-associated anal adenocarcinoma [8]. Studies have indicated significantly higher 5-year survival rates in surgical groups compared to nonoperative groups (50-58% vs. 30%, respectively, p=0.03). Additionally, radical resection has demonstrated superior outcomes compared to non-radical resection [8].

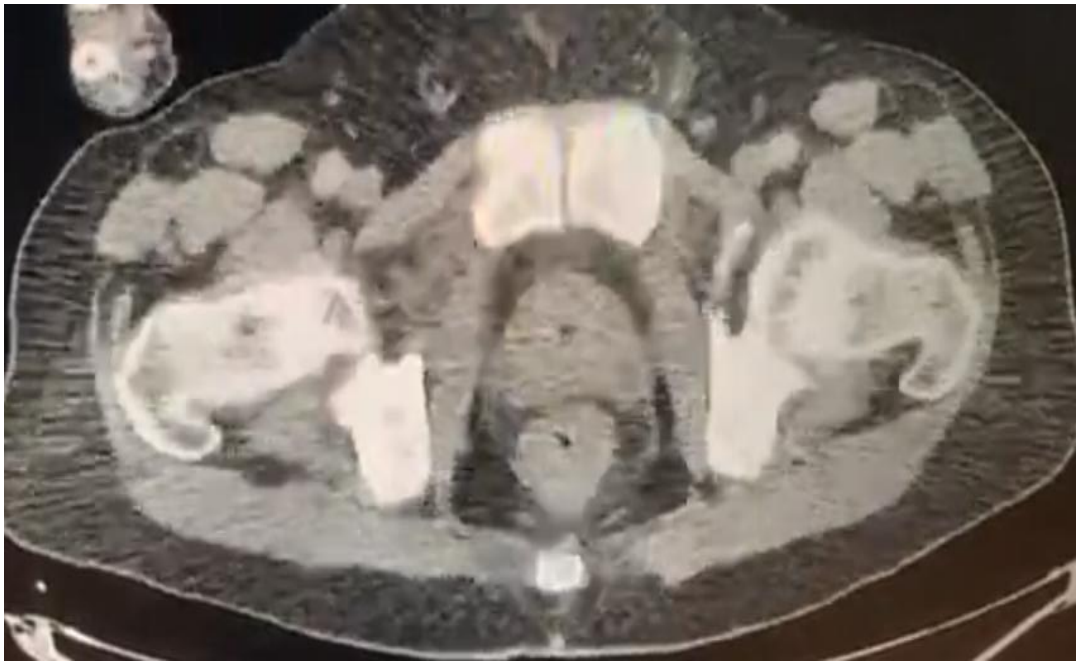
Resection through surgery is the primary curative treatment for perianal mucinous carcinoma, as local excision is often inadequate. APR, involving wide excision of both ischiorectal fossae and the overlying skin, is the recommended approach. In contrast, radiotherapy, either alone or combined with chemotherapy, can serve as curative treatment for squamous cell carcinoma of the anal canal and may also complement surgery as part of a neoadjuvant protocol [5].

In advanced cases, the prognosis is not as dire, with many reported patients experiencing recurrence-free survival. Perioperative adjuvant and neoadjuvant therapy may further enhance prognosis [9].

4. CONCLUSION

The occurrence of an anal abscess as the initial sign of rectal cancer is a rare yet crucial presentation. This case underscores the importance of investigating underlying causes in patients with atypical anorectal symptoms, even in the absence of significant medical history. Advanced anorectal carcinomas can mimic abscesses or fistulas, posing diagnostic challenges and potentially delaying oncologic therapy. Even in such extreme cases, surgical interventions with curative intent should be pursued.

Figure N°3 : axial CT section showing the rectal tumour



ETHICAL APPROVAL

As per international standard or university standard written ethical approval has been collected and preserved by the author(s).

CONSENT

As per international standard or university standard, patient(s) written consent has been collected and preserved by the author(s).

COMPETING INTERESTS

Authors have declared that no competing interests exist

REFERENCES

1. Tekbaş A, Mothes H, Settmacher U, Schuele S. Non-mucinous adenocarcinomas and squamous cell carcinomas of the anal region masquerading as abscess or fistula: a retrospective analysis and systematic review of literature. J Cancer Res Clin Oncol. 2022 Jun 1;148[6]:1509–22.
2. Leong FQH, Chan DKH, Tan KK. Anal Adenocarcinoma Can Masquerade as Chronic Anal Fistula in Asians. Ann Coloproctology. 2018 Dec 3;35[1]:47–9.
3. Fukai S, Tsujinaka S, Miyakura Y, Matsuzawa N, Hatsuzawa Y, Maemoto R, et al. Anal fistula metastasis of rectal cancer after neoadjuvant therapy: a case report. Surg Case Rep. 2022 Mar 31;8[1]:57.
4. Kato R, Miyamoto Y, Sawayama H, Ogawa K, Iwatsuki M, Iwagami S, et al. Relapse of Rectal Cancer in an Anal Fistula: A Rare Case. Vivo Athens Greece. 2021;35[5]:2937–40.
5. Ohta R, Sekikawa K, Goto M, Narita K, Takahashi Y, Ikeda H, et al. A Case of Perianal Mucinous Adenocarcinoma Arising from an Anorectal Fistula Successfully Resected after Preoperative Radiotherapy. Case Rep Gastroenterol. 2013;7[2]:219–23.
6. Ishiyama S, Inoue S, Kobayashi K, Sano Y, Kushida N, Yamazaki Y, et al. Implantation of Rectal Cancer in an Anal Fistula: Report of a Case. Surg Today. 2006 Aug 1;36(8):747–9.
7. Harpain, F., Dawoud, C., Wimmer, K. et al. Fistula-Associated Anal Adenocarcinoma: A 20-Year Single-Center Experience. Ann Surg Oncol 30, 3517–3527 (2023). https://doi.org/10.1245/s10434-023-13115-0
8. Wang M, Xiang Y, Wang Y, Zhang J, Zhao H, Wang C, Qiao L and Yang B (2022) Adjuvant chemoradiotherapy does not improve outcomes in patients with fistula-associated anal adenocarcinoma undergoing abdominoperineal resection. *Front. Oncol.* 12:1061513. doi: 10.3389/fonc.2022.1061513
9. Ikeda T, Nanashima A, Ichihara A, Kitamura E, Nagatomo K, Tanaka H. A rare case of rectal cancer with perianal metastasis: a case report. World J Surg Oncol. 2019 Aug 20;17[1]:149.