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LETTER TO THE EDITOR

Atypical pelvic recurrence of anal squamous cell carcinoma: successful endoscopic ultrasound-guided fine-needle aspiration through the sigmoid colon

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Dear editor:

Squamous cell carcinoma (SCC) of the anal canal is a rare disease, with an indolent natural history and a low rate of distant metastases, usually amenable to locoregional treatment. Nevertheless, some will develop locally advanced recurrences or metastases.

Transrectal endoscopic ultrasound (EUS) is an important diagnostic tool that allows detailed visualization of the rectosigmoid wall and adjacent pelvic organs. The use of EUS has been well described for staging rectal cancer, evaluation of the anal sphincters, drainage of pelvic abscesses, and recently, diagnosing extramural pelvic mass lesions. However, tissue sampling of pelvic lesions through EUS-guided fine-needle aspiration (EUS-FNA) is technically challenging, due to the mobility and compliance of the rectosigmoid colon. Despite the utility of EUS in evaluating colorectal diseases, few studies have assessed the utility of EUS-FNA for diagnosing extramural pelvic mass lesions.

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We herewith present an unusual and severe recurrence pattern of anal SCC, which was diagnosed by EUS and successful cytologic identification after EUS-FNA.

Clinical case A 66-year-old male patient, with no smoking habits, no human immunodeficiency virus (HIV) or human papillomavirus (HPV) infection, and no previous history of malignancy, was diagnosed with anal SCC (T2N0M0). Combined modality with chemotherapy (mitomycin C and 5-fluorouracil) and radiation (45 Gy) had been performed, and there was no evidence of residual disease after completion of treatment.

At 6 months of follow-up, contrast-enhanced computed tomography scan revealed a presacral lesion, adjacent to the rectosigmoid colon and iliac vessels, with irregular and spiculated margins, and heterogeneous contrast enhancement, suggesting tumor recurrence or adenopathy. Diagnostic sigmoidoscopy was normal. EUS was subsequently performed, using the curvilinear array echoendoscope (GF-UCT140; Olympus Medical Systems, Tokyo, Japan). A pelvic mass was observed, adjoining the rectosigmoid transition, with heterogeneous echotexture and hypoechoic areas inside, and invasion of the rectosigmoid wall. There were cleavage plans with the gallbladder, prostate, and seminal vesicles. EUS-FNA was performed using a 22-gauge needle (Olympus, Tokyo, Japan); two passes. Prophylactic antibiotics were given (ciprofloxacin 200 mg iv). There were no procedure-related complications. Cytological examination yielded the diagnosis of SCC, consistent with locoregional recurrence.

In multidisciplinary team meeting, the patient was considered for surgical salvage with abdominoperineal excision, since the metastatic workup was negative. However, a large stony pelvic mass was observed after laparotomy, which was considered unresectable due to sacral invasion. Terminal

colostomy was performed, and the patient was referred for palliative chemotherapy. He died 4 months later due to an infectious intercurrence.

Discussion Anal SCC is a rare disease. The annual incidence is approximately one in 100,000, is higher in women than in men, and has continuously been increasing over the last decade. Anal cancer is strongly associated with human HPV, HIV, and immune suppression in transplant recipients, which were not present in the case reported. Concurrent chemoradiation with mitomycin C and 5-fluorouracil is the standard of care for localized disease, and 60–85 % achieves complete clinical response at 6–8 weeks after completion of treatment. Advancing knowledge of the biology of anal SCC as well as multimodality therapy employing combination chemotherapy and radiation have improved the outcome for these patients over the last three decades. Nevertheless, some will develop locally advanced recurrences or metastases [1]. The rarity of anal cancer makes it particularly difficult to conduct investigations on prognostic factors. T and N classification remains to be the most important and reliable prognostic factors.

The current case represents an atypical and severe pattern of locoregional recurrence, with extensive involvement of the presacral area, despite complete clinical response to standard treatment. Patients with suspected cancer recurrence should undergo locoregional staging, and biopsy is mandatory to obtain a histological sample for accurate diagnosis and subsequent suitable treatment. Transrectal EUS had a critical importance allowing the assessment of its local extent, including involvement of other structures, and also obtaining a definite tissue diagnosis by EUS-FNA, for diagnosis and treatment decision [2].

EUS-FNA has been established as a useful technique in the diagnosis of rectal and perirectal masses and improves the accuracy of EUS in the diagnosis of recurrent cancer, in a reliable and minimally invasive manner [3]. Recently, Mohamadnejad et al. [4] reported that EUS-FNA of pelvic masses in close proximity to the rectosigmoid wall had an impact by making a diagnosis in 87 % (26/30 patients). Case reports have suggested that EUS and pelvic EUS-guided FNA can be valuable tools in the evaluation of some soft tissue abnormalities. Although technically complex, we describe a case of successful EUS-FNA of a pelvic lesion, via the sigmoid colon, using a curvilinear EUS scope. To the best of our knowledge, this is the first case report of presacral recurrence from anal SCC, diagnosed by EUS-FNA. There were no complications, such as bleeding, infection, or perforation. Although prophylactic antibiotics are generally not recommended before EUS-FNA of solid tumors or lymph nodes, we used prophylactic antibiotics to prevent infectious complications after EUS-FNA of colorectal lesions, as the rectum is not a clean environment [3].

In summary, EUS is a standard tool for imaging the gastrointestinal tract and adjacent structures. EUS-guided FNA allows the endosonographer access to these structures for diagnostic purposes. We describe a clinical case of a rare carcinoma, anal SCC, with no HPV infection or other known risk factors. Despite complete response to standard of care chemoradiation treatment, he presented an exceptionally rare presacral recurrence, which was imaged with transrectal EUS, with successful cytologic identification after EUS-guided FNA. We emphasize the crucial role of EUS and EUS-FNA in the diagnostic algorithm and appropriate therapeutic plan.

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Conflict of interest The authors declare that they have no conflict of interest.

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