CASE REPORT

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Primary retrorectal adenocarcinoma: report of a case

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Abstract Primary adenocarcinomas of the retrorectal (presacral) space are uncommon and usually arise from cystic lesions developing from remnants of the embryological postanal gut (tail gut cysts) containing mucous-secreting epithelium. A singular case of a patient who presented with a retrorectal mass is described. A 70-year-old previously healthy man had a four-month history of perianal pain during defecation. Preoperative colonoscopy showed external compression of the lower rectum with normal mucosa; pelvic computed tomography demonstrated a 5.5x4.5 cm² retrorectal oval mass, originating from the posterior lower rectal wall, containing cystic components and some small calcifications. The tumor, after complete resection via transanal approach, was shown to be a very rare case of primary adenocarcinoma of the presacral space. The patient had an uneventful postoperative course and he is free from disease 4 years after surgery. Clinicopathological features and surgical treatment of this unusual tumor are discussed.

Key words Presacral space • Primary retrorectal adenocarcinoma • Transanal resection

Introduction

Adenocarcinomas of the retrorectal space are extremely uncommon. The retrorectal, or presacral, space (Fig. 1) is located between the rectum (upper two-thirds) anteriorly and the sacral promontory and sacrum posteriorly. In this area, a wide spectrum of tumors can be found, including congenital neoplasms and cystic lesions [1–4]. Primary adenocarcinomas arising in this region probably derive from cystic lesions of embryologic origin, remnants of the postanal gut (tail gut cysts) [5, 6]. Clinical diagnosis is usually delayed by non-specific symptomatology and histologic diagnosis is generally obtained after an open biopsy or major operation. Finally, definitive surgical excision is made difficult by anatomic inaccessibility that gives rise to controversy about the choice of an anterior, posterior, transanal or combined operative approach.

Case report

A 70-year-old previously healthy man presented with a four-month history of sacrococcygeal pain during defecation. Digital rectal examination revealed a large, smooth presacral mass. Colonoscopy revealed external compression of the lower rectum with normal mucosa. Transanal ultrasound showed a 6-cm cystic lesion with external compression of the posterior wall of the lower rectum, with no signs of invasion of the prostatic side of the rectal wall. Pelvic computed tomography (Fig. 2) demonstrated a 5.5x4.5 cm² retrorectal oval mass, originating from the posterior lower rectal wall, containing cystic components and some small calcifications in its anterior left side. Preoperative serum level of carcinoembryonic antigen was 7.7 ng/ml (normal range, 0–5 ng/ml). Histologic examination of the cystic contents after transanal needle aspiration
showed absence of tumor cells and presence of numerous leucocytes, histiocytes and cholesterol crystals.

The patient underwent surgery and the mass was completely dissected via transanal approach. Intraoperatively there was no evidence of invasion of the rectum, sacrum or coccyx. Frozen section histologic examination of the specimen disclosed moderately differentiated adenocarcinoma infiltrating the submucosa of the mass (Fig. 3). The tumor contained large amount of necrotic material, high mitotic index (>20 mitoses x 10 HP), a wide area of chronic

Fig. 1 Lateral view of pelvic region showing the presacral space

Fig. 2 Pelvic CT scan showing a retrorectal mass containing cystic components and small calcifications in its anterior left side (arrow)