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CASE REPORT | COLON

Metastatic Cutaneous Squamous Cell Carcinoma of the Colon Presenting as Transfusion-Dependent Hematochezia

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ABSTRACT

Squamous cell carcinoma (SCC) of the colon is an exceedingly rare clinical diagnosis with few cases reported in the literature. We report a case of a 61-year-old man with a medical history of cutaneous SCC of the penis who presented with hematochezia and was found to have metastatic SCC to the distal transverse colon. To our knowledge, this is the first case of colonic SCC presenting as a metastatic disease from a primary penile site.

INTRODUCTION

Squamous cell carcinoma (SCC) is the second most common dermal cancer in the United States (US).[1] Chronic immunosuppression, especially in solid transplant recipients, in addition to the traditional risk factors such as fair skin, age, and ultraviolet exposure predispose patients to develop recurrent and advanced SCC.[2] Other primary sites of SCC involve areas of the body containing squamous cell epithelia such as the lung, cervix, anal canal, and esophagus. Colorectal SCC is rare whether the disease represents primary colorectal SCC, mixed adenosquamous carcinoma, or as a site of distant metastatic spread.[2] Penile SCC is also a rare diagnosis, representing less than 1 percent of all malignancies in men in the United States.[1] This is the first report of an immunosuppressed patient with colonic metastatic SCC from a likely penile source representing a rare metastatic presentation of a rare disease.

CASE REPORT

A 61-year-old man presented with a complaint of intermittent bloody stools for 6 months to his primary care provider. His medical history was significant for kidney transplantation 15 years before because of renal failure secondary to glomerulonephritis on chronic immunosuppressive therapy (sirolimus and prednisone), chronic deep vein thrombosis (anticoagulated with warfarin), and multiple SCCs including the penis. His SCCs were thought to be in remission after multiple ablations for recurrence 9 years before his presentation. He was found by his primary care provider to have a hemoglobin level of 10.7 g/dL and was referred to gastroenterology. On repeat laboratory evaluation at the gastroenterologist's office 1 month later, he was found to have a decrease in the hemoglobin level to 6.2 g/dL with hematocrit of 18.3%, mean corpuscular volume of 83.3 fL, iron of 18 μg/dL, and total iron-binding capacity of 390 μg/dL, with an iron saturation of 5%. He reported worsening fatigue and lightheadedness. He was found to have orthostatic hypotension in the office. He was admitted directly to the hospital for blood transfusion and urgent endoscopic evaluation of his hematochezia and anemia. He had no previous endoscopy history.

During the colonoscopy, the patient was found to have an 8-cm long ulcerated, friable stricture in the distal transverse colon 40 cm from the anal verge (Figure 1). The endoscope was advanced easily to 5 cm into the ileum without any additional

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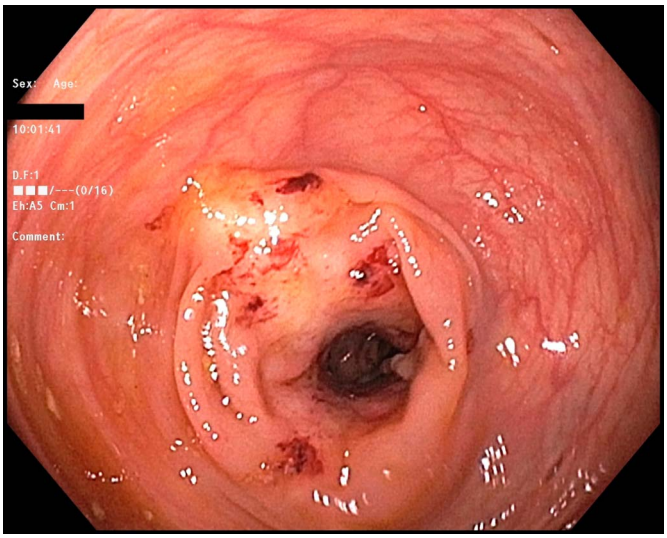

Figure 1. Endoscopic imaging revealing a friable, ulcerated stricture in the distal transverse colon 40 cm from the anal verge representing colonic squamous cell carcinoma.

findings. Biopsies of the stricture were taken, and the site was marked with ink tattoo and hemostatic clips. Pathology resulted in SCC with positive immunostaining for markers p63, p40, and cytokeratin 5/6 (Figure 2). After colonoscopy, the patient's hemoglobin remained stable. The diagnosis was metastatic cutaneous SCC to the lower gastrointestinal tract. The patient was referred to a tertiary cancer center for further evaluation and treatment.

DISCUSSION

SCC involving the colon and rectum proximal to the anal verge are uncommon diagnoses with few cases reported in the literature. Primary colorectal SCCs have an incidence of less than 0.1% of all colorectal malignancies with rectal predominance.[3–5] The exact pathogenesis of primary colorectal SCCs is unknown, but based on a review of the established cases in the literature, these cancers typically present late-stage and with poor prognostic outcomes. Owing to the rarity of the disease, treatment algorithms are debated, but the mainstay appears to be surgical resection followed by adjuvant chemotherapy and/or radiation.[6]

Colorectal SCC confirmed by histology must meet the following diagnostic criteria to be considered primary neoplasia: (i) no evidence of SCC in any other part of the body, (ii) disease involving the rectum must undergo proctoscopic evaluation to rule out extension from the anal epithelia, and (iii) there must be no evidence of fistulous tracts lined by squamous cells entering the gut lumen.[7] Based on these diagnostic criteria, our patient was diagnosed with metastatic cutaneous SCC to the colon.

Metastatic SCC of the colon is rare. It has been previously reported with primary tumor sites, including the lung, cervix, esophagus, and ovary.[8–12] Cutaneous SCC of the colon is exceedingly rare, and to our knowledge, only 1 other case has been reported in the literature.[13] In contrast to the previously reported patient for whom metastatic SCC was found

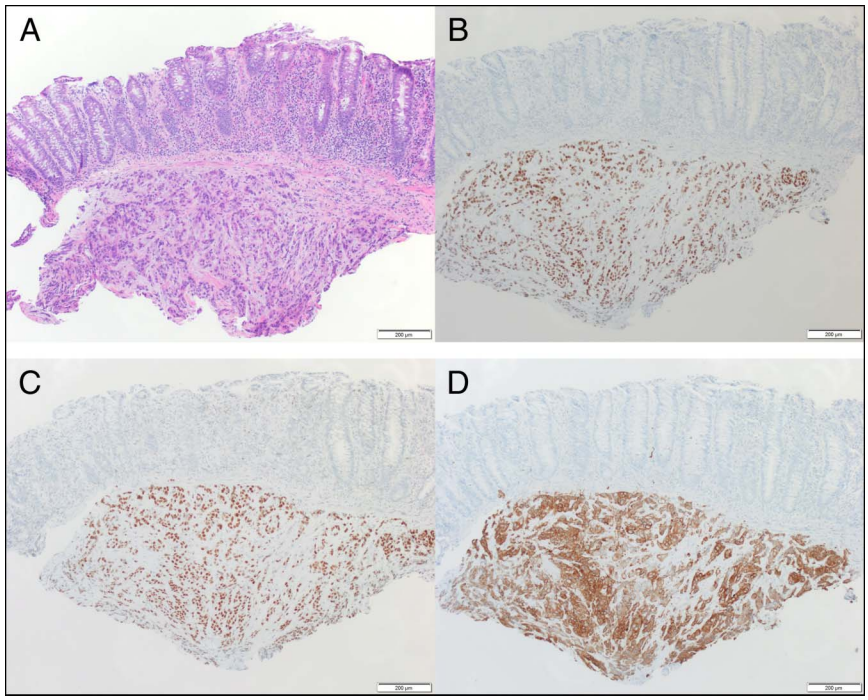

Figure 2. Colon biopsy showing (A) highly proliferative, malignant infiltration of the colonic wall mucosa with hematoxylin & eosin stain, (B) with positive p63 staining in the nuclei of malignant squamous cells, (C) positive p40 staining in the nuclei of malignant squamous cells, and (D) positive cytokeratin 5/6 staining in the cytoplasm of malignant squamous cells.

incidentally, our patient's diagnosis presented as hematochezia causing symptomatic, transfusion-dependent anemia. In addition, in our patient, an established risk factor of chronic immunosuppression predisposed him to develop multiple cutaneous SCCs. His SCC history was most significant for aggressive and recurrent penile involvement that required 2 ablation procedures 9 years before his presentation. Although the rate of metastasis for all cutaneous SCC is 5%, certain risk factors increase the likelihood of distant metastatic spread and more advanced disease. High-risk features such as a primary malignant lesion with a presenting size greater than 2 cms in diameter and/or recurrence of disease can increase the likelihood of development of metastasis to 30% to 45%.[14] Therefore, we posit that the most likely pathogenesis of our patient's disease presentation was penile SCC with metastatic spread to the colon.

The diagnosis of metastatic colorectal SCC with cutaneous origin represents a rare oncologic diagnosis in this patient with multiple risk factors for malignancy, including previous cancer diagnoses and chronic immunosuppression. Given his medical history, there should have been a high index of clinical suspicion for metastatic disease or a new primary diagnosis of cancer in the presence of any gastrointestinal complaints including rectal bleeding. Moreover, patients with a high risk for malignancy should adhere to age-appropriate cancer screening to diagnose and treat preventable cancers. Our patient had not received age-appropriate cancer screening because he had never had a colonoscopy before this presentation. Although the diagnosis was ultimately colorectal SCC which likely follows a different pathogenesis than adenocarcinoma, a screening colonoscopy may have caught this lesion at an earlier stage and prevented transfusion-dependent hematochezia.

DISCLOSURES

Author contributions: D. Dornblaser wrote the manuscript and is the article guarantor. C. Hajdu provided the pathology images. J. Rosenberg and G. Gurvits revised the manuscript for intellectual content.

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Informed consent could not be obtained from patient despite several attempts. All identifying information has been removed from this case report to protect the patient's privacy.

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