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Lower urinary tract symptoms (LUTS) as the initial presentation for colorectal malignancy.

SUMMARY

The presenting features of colorectal carcinoma in the African patient are not different from reports worldwide although the majority present late with features of advanced disease (1). Increasing frequency of diagnosis may be attributed the twin effects of changing diets and easier access particularly by the elite population to modern diagnostic imaging tools.

A 72 year old African male presented to a private practitioner with a 2 week history hematuria, frequency, nocturia and subsequently a 2 day history of retention of urine (AUR). Imaging studies demonstrated a tumour mass invading the roof of the urinary bladder. Following surgical extirpation the mass was subjected to histopathological evaluation.

INTRODUCTION

Colorectal is the second most common cause of mortality in Europe and commonest in the United States , but there is great variation incidence between different regions of the world (2). Although there is a paucity of epidemiological data on colorectal cancer in sub-Saharan Africa recent studies have shown that the incidence is now increasing especially in urban centers (1), (3). The malignancy can occur at any age but is most frequent after the age of 50 years. Advanced carcinoma spreads along tissue layers that provide the least resistance such as the vascular gaps in the muscular propria along the mesenteric connective tissue of the serosa or the mesocolon. Only rarely does direct spread to neighboring intraperitoneal organs occur because the peritoneum represents a relative barrier (4). In these circumstances the small intestine, lower bladder and prostate gland may be involved.

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C.O. is a 72 year old male who presented with a 2 week history of hematuria frequency, nocturia and 2 day history of acute retention of urine. He admitted to a history of moderate weight loss as well as fever on and off. Digital rectal examination (DRE) revealed a moderately enlarged soft prostate gland (approximately 50 gram with an intact

sulcus. No nodules were palpated. He also had suprapubic tenderness as well as a rounded smooth mass extending into left iliac fossa. The mass was solid and mobile. Laboratory evaluation demonstrated an anemia of 8.49 g/dl, dilutional hyponatraemia (Na⁺ 14 mmol/L) and creatinine of 128.8 (upper limit of normal for the laboratory being 120 mmol/L). Urine cytology was twice negative for malignancy. Tumor markers such as Carcinoembryonic antigen (CEA), Alpha Feto Protein (AFP) and CA 19-9 were all within the normal range. Imaging studies obtained are plain xray abdomen, abdominopelvic sonography and computed tomography (CT scan) of the abdomen and pelvis. Magnetic resonance imaging (MRI) was not carried out. Anaemia was corrected by transfusing 4 units of blood. The patient then underwent a cystoscopic evaluation and biopsy under general anaesthesia. This was followed by definitive abdominopelvic surgery, (laparotomy).

IMAGING FINDINGS.

Abdominal Ultrasound Examination showed a hypoechoic mass in the right iliac fossa measuring 6.4x4.2cm. The origin remained unclear. It appeared separate from the urinary bladder and prostate gland. CT of the abdomen and pelvis confirmed the sonographically detected hypogastric mass. Multiplanar reformatted images showed deformation of the roof of the urinary bladder whose wall was thickened. The prostate gland was moderately enlarged but exhibited uniform texture. There was no attendant ascites or paraaortic lymphadenopathy. Considerations included mesenteric tumour or an abscess. Postoperative imaging studies showed no evidence of residual or recurrent tumour.

PATHOLOGY FINDINGS.

Received perforated mass measuring 120mm in diameter to which is attached a segment of bowel 200mm in length. The cut surface showed a segment of large bowel with an ulcerated perforated tumour that involved the full thickness of the wall and appears to have penetrated the wall of the small bowel and the urinary bladder. No lymph nodes identified. Microscopy shows a well differentiated mucin secreting adenocarcinoma arising from the colonic mucosa. There is transmural invasion with focal ulceration and extension into the adjacent ileum and urinary bladder wall. Vascular and perineural permeation are not seen. Tumor necrosis present. Excision margins free of tumor. Final diagnosis made of a Grade 1 adenocarcinoma of the colon at least Duke B. TNM T4N_xM_x.

DISCUSSION.

Distant metastases to the bladder have been reported in patients with primary stomach, skin, breast, lung, pancreatic and oesophageal malignancies. (5). A correct distinction between primary adenocarcinoma of the bladder and secondary colorectal adenocarcinoma is important for staging of disease, determining appropriate treatment and ultimate prognosis. (6). Immunohistochemical similarities between primary adenocarcinoma and secondary colorectal adenocarcinoma make this task difficult. (6). Silver and Susan reported nine cases of adenocarcinoma of the colon secondarily involving the bladder mucosa and histologically mimicking primary bladder neoplasia. (7). The initial clinical impression, largely based on radiological and cystoscopic studies was a bladder primary in four and a colon cancer in the remainder. This case highlights the importance of considering an extravesical primary even when the symptomatology suggests primary malignancy in the lower urinary tract. The broad based diagnostic workup would fast track the identification of the atypically presenting colorectal malignancies impacting on the prognosis.