Renal Vein Thrombosis and Metastasis to the Bladder: An Unusual Presentation of Malignant Melanoma

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Malignant melanoma of the bladder and renal vein thrombosis are rarely seen in common urologic practice. Here, an interesting case of renal vein thrombosis associated with malignant melanoma involving the bladder is presented.

Case report

A 65-year-old white male was admitted to the hospital with a two-week history of severe right flank pain and haematuria. He had a history of excision of malignant melanoma from the right chest wall and axillary lymph node dissection in 1979. Physical examination at this time revealed severe right costovertebral angle tenderness. His laboratory evaluations were significant for gradually decreasing haematocrit and haemoglobin.

On admission, the patient underwent cystoscopy which revealed numerous clots within the bladder and also exiting the right ureteral orifice. A tiny hyperpigmented flat lesion at the dome seen at that time was biopsied. Histologic evaluation of this lesion was consistent with malignant melanoma (Fig. 1).
A right retrograde pyelogram was performed, revealing numerous filling defects within the right ureter and a large filling defect in the renal pelvis, consistent with clots. Ureteroscopy was noncontributory due to numerous clots. A double pigtail catheter was placed for symptom relief.

A computerized axial tomography (CT) of the abdomen revealed multiple clots within the right renal pelvis and evidence of right renal vein thrombosis with suggestion of vena caval involvement (Fig. 2). Abdominal ultrasonography confirmed this diagnosis.

Fig. 2. Axial image taken at the level of the kidneys demonstrates right renal vein thrombosis extending into the IVC. The right kidney is swollen and demonstrates decreased enhancement secondary to decreased perfusion.

Because the patient developed melaena, an upper gastrointestinal endoscopy was performed and revealed a large hyperpigmented mass in the gastric fundus and multiple small bloody lesions in the duodenum. Biopsies of these lesions were also consistent with metastatic melanoma. The patient had a rapid demise and expired within one week.

Comment

Although thrombosis of the renal vein may occur as a complication of severe dehydration and haemoconcentration in children with severe diarrhoea from ileocolitis, it is extremely rare in adults. Invasion of the renal vein by tumour must be thought of as a primary cause in cancer patients. In this case, the patient who had a previous history of malignant melanoma underwent complete work-up for his right flank pain and gross haematuria.