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Bladder Cancer in an Elderly Patient: A Rare Cause of Hypercalcemia

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Abstract: Hypercalcemia is a high calcium level in the blood serum. The normal range is 8.5–10.5 mg/dL, with levels greater than 10.5 mg/dL defined as hypercalcemia. It is a condition that most commonly associated with malignancy or primary hyperparathyroidism. Treatment for hypercalcemia should be aimed lowering the serum calcium concentration and finding the underlying disease. Effective treatments reduce level of calcium by inhibiting bone resorption, increasing urinary calcium excretion or decreasing intestinal calcium absorption. Bladder cancer is the most common malignancy involving the urinary system. Urothelial (transitional cell) carcinoma is the predominant histologic type in the United States and Europe, where it accounts for 90 percent of all bladder cancers.
Keywords: hypercalcemia, bladder carcinoma in elderly

INTRODUCTION

Hypercalcemia is a high calcium level in the blood serum[1]. The normal range is 8.5–10.5 mg/dL, with levels greater than 10.5 mg/dL defined as hypercalcemia[1]. It is a condition that most commonly associated with malignancy or primary hyperparathyroidism[2]. We present here a case of bladder carcinoma who admitted with hypercalcemia and urinary tract infection.

CASE REPORT

A 70-years old male patient was admitted to the Internal Medicine Clinic because of dysuria, exhaustion and loss of appetite. His examination revealed no significant evidence. On the laboratory, calcium level was 14 mg/dl, white blood cell count was 40 000/mm3 and urinalysis showed abundant leucocyte. His parathormone level was suppressed. Firstly, he was accepted as urosepsis and antimicrobial treatment was immediately started along with hypercalcemia treatment including force diuresis and zoledronic acid. At the other side, multipl myeloma and other hematologic malignancies were excluded. His abdomen ultrasonography showed a lesion which has a diameter of 10 cm in the bladder. A transurethral biopsy was performed. The pathologic result was reported as "uroepithelial carcinoma of bladder". On the follow-up, he was transferred to the Intensive Care Unit because of sepsis and he died 10 days later.

CONCLUSION

With presenting this case, we would like to emphasize that hypercalcemia's differential diagnosis is a though process and all the patients who present with this conditon must be evaluated properly[1]. Treatment for hypercalcemia should be aimed lowering the serum calcium concentration and finding the underlying disease[1,3]. Effective treatments reduce level of calcium by inhibiting bone resorption, increasing urinary calcium excretion or decreasing intestinal calcium absorption. Up to date, hypercalcemia treatment involves firstly force diuresis and zoledronic acid treatment[4]. Bladder cancer is the most common malignancy involving the urinary system. Urothelial (transitional cell) carcinoma is the predominant histologic type in the United States and Europe, where it accounts for 90 percent of all bladder cancers[5,6].

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