Urinary bladder cancer showing surface calcification on computed tomography scanning

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CASE REPORT

A 84-year-old male who was ex-smoker consulted outpatient clinic complained of sudden-on-set of right hemiplegia. Cerebral magnetic resonance imaging scan showed early stage of lacunar infarction of left cerebral basal ganglia, and administration of anti-platelet agent was started. Two days after admission, patient noticed dark color change of urine. There were no other symptoms. Urinalysis revealed moderate occult blood, mild proteinuria, pH 8.5, but urine culture was sterile. Plain abdominal CT (Figure 1 and Figure 2) demonstrated flatter-shaped and round-shaped, tumorous lesion on the right lateral part of urinary bladder lumen. The surface of tumorous lesion was irregular, and spotted calcification was recognized. Blood laboratory examination showed as following; C-reactive protein 0.4 mg/dL, white blood cell count 5,300/mL, hemoglobin 15.0 g/dL, thrombocyte count 193,000/ mL, CEA 3.0 ng/mL, SCC 1.3 ng/mL, PSA 0.8 ng/mL, albumin 4.2 g/dL, Ca 10.3 mg/dL, P 2.6 mg/dL, intact PTH 48 pg/ml (normal range: 10–65), and PTH related peptide was 1.3 pmol/L (normal range: less than 1.1). Although hypercalcemia was complicated, other symptoms consistent with paraneoplastic syndrome were not recognized. During the treatment of cerebral infarction, urine cytological examination was repeated and showed class V (transitional cell carcinoma mixed with squamous cell carcinoma). There were no metastatic other organs, and endoscopic tumor resection (transurethral resection of bladder) was performed. The size of cancer was 20 mm, and final pathological report was transitional cell carcinoma mixed with squamous cell carcinoma partially invaded into muscle layer of bladder wall (pT2, pL1, pV0). Grade of severity was G3. Since the patients was rather older and possible risk of cerebral infarction recurrence after surgery was high, surgical removal of whole urinary bladder did not selected as the therapeutic option. Then, additional radiation therapy against urinary bladder was performed. After that, serum calcium concentration recovered into normal ranged. At the point of 5 years past, no recurrence was confirmed, and patient was alive.

DISCUSSION

The incidence of urinary bladder cancer is still remained high, and smoking is known as risk factor [1]. But calcification with urinary bladder cancer like this case is rare. According to previous report, incidence of calcification with urinary bladder cancer was less than 1.0% [2, 3]. The characteristic finding of this case was as following; cell type was relative rare, transitional cell carcinoma combined with squamous cell carcinoma, and laboratory data showed hypercalcemia. As the cause of calcification in the present case, the involvement of hypercalcemia was speculated. Hypercalcemia-related
paraneoplastic syndrome is known as one of complications of urinary bladder cancer [4]. Fortunately, this case did show complaints related hypercalcemia, and serum calcium concentration recovered into normal ranged after all the treatment of cancer. On the other hand, Moon et al. [5] reported about calcification appearance in bladder cancer and pathological findings. They reported that surface nodular or plaque-like calcification was seen in transitional carcinoma, and multiple fine punctate calcifications were seen in mucinous adenocarcinoma. As the other reasons of tumor calcification, repeated urinary-tract infection and parasite infection induced bladder cancer were also reported [2, 3, 5–7], but in this case did not consisted with them.

CONCLUSION

A rare case of urinary bladder cancer was reported. When recognizing tumor with calcification in urinary bladder, possibility of complication with hypercalcemia should be considered.

Keywords: Calcification, Hypercalcemia, Urinary bladder cancer

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Conflict of Interest

Authors declare no conflict of interest.

REFERENCES