

Unusual location of a urinary bladder cancer metastasis

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Bladder cancer is the fourth most common malignancy among men in the Western world. Bone metastasis occurs in 27 % of the cases. Usually, the location is the spine. The present report describes the first case of a proven distant bone metastasis to the acromion from a urinary bladder carcinoma in a patient with shoulder pain.

Case report

An 84-year-old male smoker (60 pack-years) was first seen in our urological clinic in January 2008, when he presented with macrohematuria. At this time, sonography showed a mass measuring 35 x 16 mm in the posterior wall of the urinary bladder, which was confirmed through ureterovesicostomy in February 2008. The abdominal CT for staging revealed no metastasis within the abdomen. The patient underwent three instances of palliative transurethral partial resection of the bladder. Histology revealed a vesicular carcinoma pT2 NX MX G3 and a second carcinoma in situ (CIS). Based on the age of the patient, a cystectomy was not indicated, and symptomatic treatment was performed.

In January 2009, he was admitted to our hospital with a history of exacerbating cough and progressive dyspnea. A chest radiograph (Fig. 1) was initially interpreted as showing signs of COPD but no further pathology, so he was treated symptomatically. During the hospital stay he complained about right shoulder pain for the prior two weeks. Clinically he had an elevation deficiency of the right arm. An X-ray of the right shoulder (Fig. 2) showed a lytic lesion within the



Figure 1. 84-year-old male with bladder cancer. PA chest radiograph at admission shows a lytic lesion in the right acromion.

right acromion. CT confirmed the lytic lesion within the acromion (Fig. 3) and revealed further lytic lesions in the neck and corpus of the scapula, and the third rib on the left side; it also detected several pulmonary nodules as well as two subcutaneous nodes in the upper back.

In the context of malignancy, presence of distant metastases was assumed. To confirm this, CT-guided percutaneous biopsies were performed in the acromion and the subcutaneous nodes. In both regions, histology showed a poorly differentiated carcinoma. The immunohistochemical marker CK20 was expressed, while CK7 was negative.

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Figure 2. 84-year-old male with bladder cancer. AP radiograph of the right shoulder shows a lytic lesion in the acromion.

With the morphological aspect and the above described findings of the biopsy, a metastasis of the urinary bladder carcinoma was proven. The patient underwent palliative radiation therapy.

Discussion

Bladder cancer is the fourth most common malignancy among men in the Western world. Age-standardized mortality rates vary from 2 to 10 per 100,000 per year for men, and 0.5 to 4 per 100,000 per year for women (1). Between 29% and 43% of patients in stage T3, and 54% to 70% in stage T4, have metastasis (2). Common sites of metastasis of carcinoma of the urinary bladder are the regional lymph nodes (78%), liver (38%), lung (36%), bone (27%) adrenal gland (21%), and intestine (13%) (3), but also other atypical localizations were described, for example, the brain (4). The most common site of bone metastasis is the spine, and usually it is a lytic lesion (1). Lytic lesion in the acromion occurs also in trauma, without sign of malignancy (5). Soft-tissue metastasis of the urinary bladder carcinoma in the

shoulder girdle was first described by Weizer et al. (6). The rate of metastasis to the skin is between 0.2 and 2 % with a poor prognosis; median survival is 6 to 9 months (7). To the best of our knowledge, this is the first case to describe a distant bone metastasis to the acromion. Other case reports described patients with ovarian carcinoma (8) or lung car-

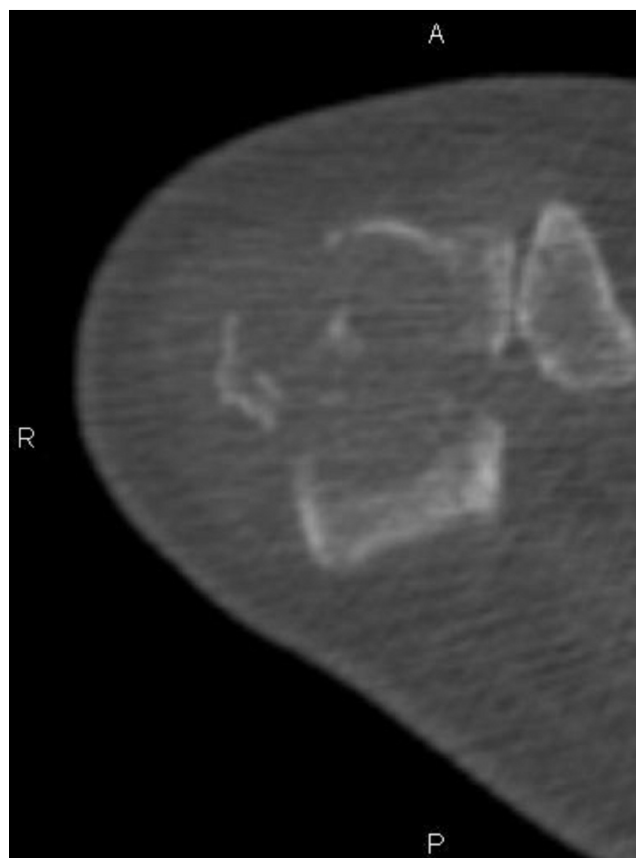


Figure 3. 84-year-old male with bladder cancer. Axial CT, B70, shows a lytic lesion of the acromion with periosteal destruction.

cinoma presenting with rare distant metastases to the scapula (9).

Bone metastases from urinary bladder carcinoma are not rare. We present the first published case of a metastasis within the acromion, appearing clinically as a painful shoulder. This fact should remind us to consider a metastasis, even in the acromion, when a patient with known carcinoma complains of shoulder pain.

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