A case of a gigantic urine bladder due to prostate cancer obstruction on a technetium-99m methyl diphosphonate bone scan

To the Editor: Since the normal urine bladder content is limited, to not more than 600 ml [1] and prostate carcinoma is not usually associated with a gigantic urine bladder, we would like to report such an uncommon case: The patient, a 68-year-old man, presented with pollakiuria and urine incontinence. His serum PSA was 150 ng/ml. A technetium-99m methyl diphosphonate (^{99m}Tc-MDP) scan was performed as part of the initial staging procedure. This scan revealed a large area of increased tracer uptake in the pelvis and the lower abdomen, best seen on the anterior view (Fig. 1 A). By that time the patient suffered from urine retention. Abdominal computerized tomography revealed an extremely large urine bladder reaching up to the lower margin of the liver (Fig. 2A, and 2B), wall thickening at the neck of the bladder indicating tumor invasion, solitary nodules at the pelvic area around the prostate and moderate hypertrophy of the prostate. After bladder catheterization 4000 ml of urine were collected (Fig. 1 B). The patient underwent trans-urethral resection of the prostate to decrease his symptoms and was given androgen blocking treatment. No surgical bladder resection was applied. He was free of symptoms when re-examined after six months.

According to our knowledge, only one gigantic bladder case has been reported in the literature and that was treated by surgery of the bladder [2]. In our case, the primary disease was prostate cancer, a common malignancy of the elderly men. Although the management of prostate cancer remains controversial, androgen-deprivation treatment is used increasingly as monotherapy for patients with clinically localized disease, as in our patient [3]. However, our patient needed relief of the bladder obstruction symptoms and was thus treated with prostate resection.

Prostate resection should be therapeutically decided for urine obstruction palliation in cases of gigantic bladder due to prostate cancer. According to our experience as mentioned above, partial resection of the bladder is not necessary and should be avoided.

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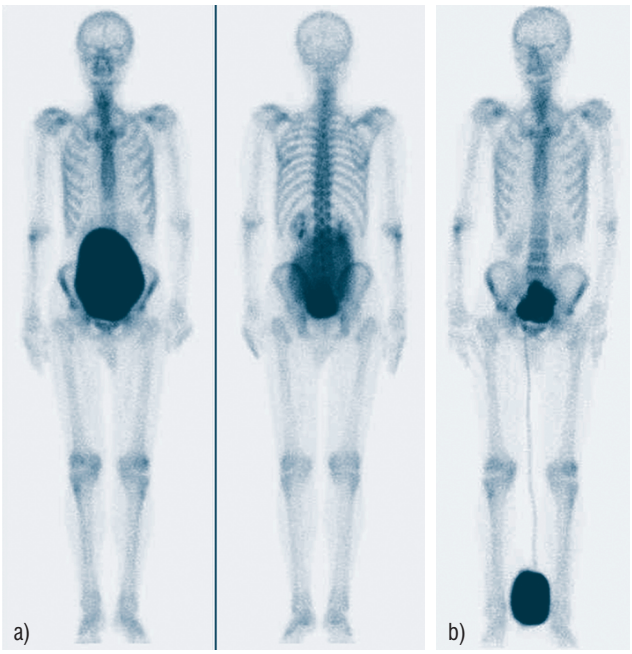

Figure 1. a) Whole body ^{99m}Tc-MDP scintigraphy showing a gigantic urine bladder. Anterior and posterior views. b) After urinary tract catheterization, an anterior whole body image was obtained.

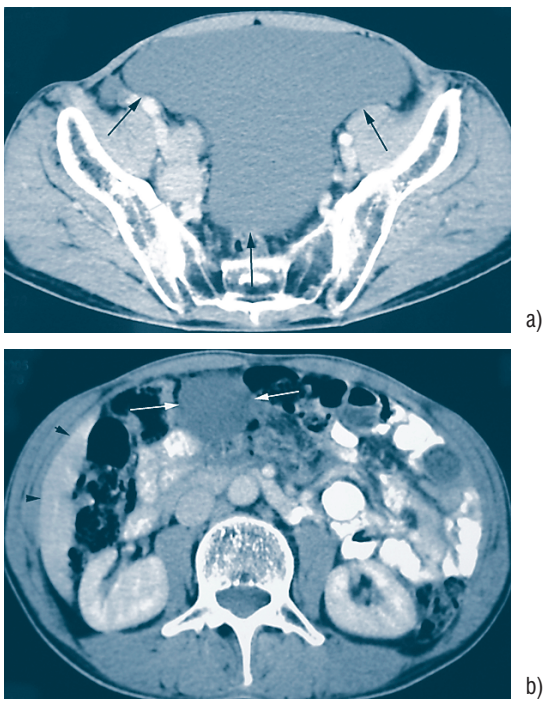

Figure 2. A contrast enhanced 8-mm-thick CT slice shows: a) A huge urinary bladder up to the right hypochondrium. Black arrows show boundaries of the urinary bladder. b). White arrows show the upper limit of the urinary bladder at the level of the lower margin of the liver. Short arrows show the lower margin of the liver.