

## Bone Loss as Sign of Cancer Relapse

Mara Carsote<sup>1</sup>,  
Anda Dumitrascu<sup>2</sup>,  
Adina Ghemigian<sup>1</sup> and,  
Catalina Poiana<sup>1</sup>

- 1 Department of Endocrinology, C.I. Parhon National Institute of Endocrinology and C.Davila University of Medicine and Pharmacy, Bucharest, Romania
- 2 Department of Imagery and Radiology, C.I. Parhon National Institute of Endocrinology, Bucharest, Romania

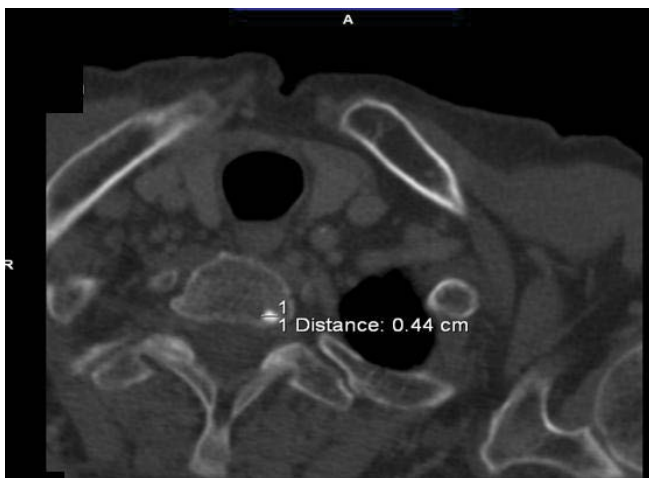
**Corresponding author:** Mara Carsote

✉ carsote\_m@hotmail.com

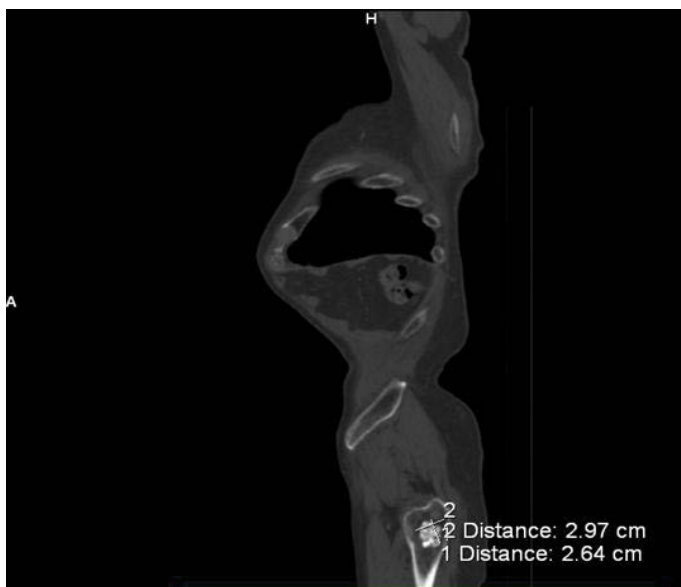
Department of Endocrinology, C.I. Parhon National Institute of Endocrinology and C. Davila University of Medicine and Pharmacy, Bucharest, Romania

**Tel:** +40213172041

**Fax:** +40213170607



**Figure 1a** Computer tomography: metastases in 80-year old male presenting for bone loss based on central DXA assessment. Transverse section at the level of urinary bladder level.



**Figure 1b** Sagittal section at the level of left trochanter.

80 year old non-smoker male was operated and considered cured for 2 cancers: 16 years ago for a urinary bladder carcinoma (pT1NoMo) and 12 years ago for a non-metastatic prostate adenocarcinoma of grade II. At that time surgical castration was performed and 24 months later he developed hypogonadism related osteoporosis. Dual Energy X-Ray Absortimetry (DXA) found a femoral neck bone mineral density (BMD) of 0.63 g/cm<sup>2</sup>, T-score of -3.3, and Z-score of -2. He was treated with oral bisphosphonates for 7 years. At that time the whole body bone scintigrame was negative for bone metastases and the abdominal computer tomography proved no tumour relapse so he continued anti-osteoporotic therapy for 2 more years. He was referred to our tertiary centre of endocrinology for lack of BMD improvement despite of anti-osteoporotic therapy (femoral neck BMD of 0.545 g/cm<sup>2</sup>, T-score of -3.7, Z-score of -1.7). On admission the bone markers were suppressed and normal parathormone and thyroid stimulating hormone levels were found. Vitamin D was inadequate based on 25-hydroxy vitamin D of 16 ng/mL (normal levels above 30 ng/mL). Computer tomography exam found multiple metasarases at the level of urinary bladder wall and left trochanter (**Figure 1**). Vitamin D supplements were started as well as monthly zolendronic acid and oncologic management..