



A Case Report of Pubic Bone Metastasis from Bladder Cancer Mimicking Osteitis Pubis

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Abstract

Most symmetric radiotracer accumulation in the skeleton found in bone scintigraphy is thought to be non-specific or benign cause. Solitary symmetric bone metastasis is rare and often misinterpreted. Other image modalities or biopsy are usually needed to differentiate malignant metastasis from benign cause. The authors report a case of bladder cancer with pubic bone metastasis. The bone scan showed symmetric uptake in bilateral pubic bones mimicking the typical appearance of osteitis pubis. However, the pelvic CT scan showed bone metastasis to symphysis pubis.

Keywords: Bone scintigraphy; Bone metastasis; Bladder cancer; Osteitis pubis

Introduction

Osteitis pubis (also known as the pubic symphysisitis) is a painful, inflammatory, noninfectious condition that involves the periosteum, bonecartilage, and ligament us structures in the symphysis pubis. It can result from several causes such as genitourinary or gynaecological surgery in older individuals [1]. One of these is mechanical strain, either from a single major event or from repetitive micro trauma, such as from running [2-7].

Case Report

A 61-year-old female patient had end stage renal disease and received hemodialysis for 5 years.

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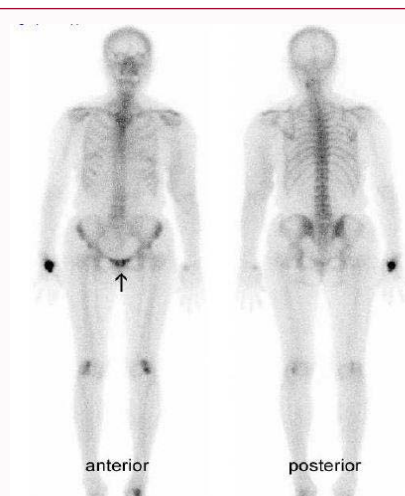


Figure 1: The symmetrically increased radioactivity insymphysis pubis and adjacent superior pubic rami, mimicking the typical appearanceof symphysisitis pubis.



Figure 2: The pelvic CT scan showed bone destruction of the symphysis pubis with adjacent soft tissue lesion.

Due to painless hematuria, she came to our hospital for help and transitional cell carcinoma was diagnosed. Therefore, she underwent bilateral nephroureterectomy, radical cystectomy and pelvic lymph node dissection as a treatment [8].

Discussion

One year later, Tc-99mMDP bone scan and pelvic CT scan were arranged for her follow-up survey. The whole body bone scan was performed at 3 hours after the injection of 740MBq (20 mCi) Tc-99m methylene diphosphonate (MDP). The symmetrically increased radioactivity in symphysis pubis and adjacent superior pubic rami, mimicking the typical appearance of symphysis pubis (Figure 1).

The pelvic CT scan showed bone destruction of the symphysis pubis with adjacent soft tissue lesion (Figure 2). Metastatic disease is considered. In summary, this case illustrates the potential pitfalls of misinterpreting solitary symmetric bone metastasis as benign cause. Careful attention to the clinical and radiographic presentation is important to avoid this misdiagnosis.

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