

## عنوان مقاله:

Studying the specificity of bone SPECT for differentiating malignant from benign lesions in the vertebral column of the [patients with a known primary malignancy [Persian

## محل انتشار:

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## خلاصه مقاله:

Metastatic survey of the patients with known primary malignancies with bone scan is one of the most common studies in nuclear medicine. Unfortunately the conventional planar bone scan has a very low specificity for differentiating benign from malignant lesions especially in the spinal column. In this study, we compared the specificity of SPECT imaging and conventional planar bone scan. We studied 20 patients (12 male and 8 female) with known primary malignancy, which had abnormal increased uptake in the spinal column on the planar images. SPECT of the spine was performed for all of these patients. Lesions of the body and pedicles were considered malignant (45 and 37 lesions respectively) and lesions of the anterior rim of the body, spinal and transverse processes and laminae were considered benign (15, 6, 5 and 2 lesions respectively). The results of the SPECT were correlated with MRI of the spine or the results of biopsy. 21 out of 24 benign lesions were correctly diagnosed by SPECT imaging. Specificity, positive and negative predictive values of the SPECT were 87.5%, 96.3% and 75% respectively. On the other hand the specificity of the conventional planar imaging was 30%. According to the results of this study, the SPECT imaging of the spinal column can be very useful for differentiating benign from malignant causes of abnormal increased uptake of the spine. Particularly lesions located in the vertebral bodies and pedicles should be considered malignant and lesions of the anterior border of the vertebral bodies as benign degenerative changes.

## کلمات کلیدی:

Metastasis, SPECT, Bone scintigraphy, Primary malignancy

## لینک ثابت مقاله در پایگاه سیویلیکا:

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