EVALUATION OF UNEXPLAINED BACK PAIN BY BONE SPECT AND CT

Hodolic M, Seliger-Fettich M, Fettich J, Slodnjak I
University Medical Centre Ljubljana, Departments of Nuclear Medicine, Neurosurgery, and Radiology, Slovenia

AIM: The objective of this study was to determine sensitivity and specificity of bone SPECT scintigraphy and CT of the spine, to determine sensitivity and specificity of both investigation combined in determining the cause of unexplained back pain for different underlying pathologies, and to determine the place of these two basically different imaging modalities in clinical workout of patients with unexplained back pain.

MATERIAL AND METHODS: 44 patients with diagnosis of lower back pain, as deffined above, were investigated. There were 48 lessions detected in the lower spine, in which the final diagnosis was reached as described.

RESULTS: When scintigraphic results were compared to CT it was found that generally scintigraphy was as sensitive as CT, while CT was more specific. There were nevertheless differences according to specific final diagnosis, scintigraphy beeing more accurate in cases of facet joint affection, sacroileitis, discitis and lower back pain, while CT was more specific in degenerative changes, herniated disc, tumors and compressed fractures.

CONCLUSION: According to our experience SPECT and CT are complementary imaging methods, the first showing metabolic changes and the second morphological abnormalities.