SHORT COMMUNICATION

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Quantitative sacroiliac joint scintigraphy in normal subjects and patients with sacroiliitis

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The aim of this study is to determine the sacroiliac index (SII) of healthy subjects and to compare these values with patients having sacroiliitis (SI). Quantitative sacroiliac scintigraphy (QSS) was performed with Tc-99m hydroxy methylene diphosphonate (HMDP) and whole sacroiliac joint-to-sacrum ratio was calculated as a SII by the region of interest (ROI) method. Forty-seven nonarthritic healthy subjects and 13 patients with SI were studied. Effects of aging, gender and laterality on SII were evaluated in 47 healthy subjects.

The sacroiliac index was higher in men than women ($p < 0.05$). SII did not change significantly in aged men, but it decreased significantly in aged women ($p < 0.05$). Eleven of 13 patients with SI had a higher SII than healthy subjects (> mean + 2SD). In the other two cases by using small ROIs, SIIs were found to be higher than the normal range. Our results suggest that QSS is a sensitive method for the diagnosis of early stage SI and every institution should establish its own normal SII.

Key words: sacroiliitis, sacroiliac joint, quantitative sacroiliac scintigraphy