

## Evaluation of diffusely high uptake by the calvaria in bone scintigraphy

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The present study was undertaken to evaluate the finding of diffusely high uptake by the calvaria in a series of 994 consecutive whole body scans in regard to the incidence and degree, and to discuss the mechanism. A total of 86 patients had positive scans (73 women and 13 men) and there were 71 malignant (27 breast, 16 lung, and 28 other malignancies), and 15 benign disease cases (5 degenerative bone, 3 blood, and 7 miscellaneous diseases). Positive rate of the finding was 8.7% in total, 14.9% in women, and 2.6% in men. The difference between women and men was significant ( $P < 0.001$ ). The finding was significantly correlative with the ages of patients. Also the finding is shown to be predominant in women ranging 50-59 years of age. On the other hand, the same finding as was made by Creutzig and his coworker was confirmed in malignant cases under high-dose anticancer drug therapy. On the basis of these results, the finding may be not only a side effect of intensive cytotoxic medication on the skeleton, but also a physiological event relative to bone change with age and postmenopausal osteoporosis.

**Key words:** Bone scintigraphy, Calvarial uptake, Sickie sign, Postmenopausal osteoporosis