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Scintigraphic changes in bone metastasis from prostate cancer after hormonal therapy—Comparison with tumor markers and bone X-ray

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Bone scintigraphy is often performed to assess the response to systemic therapy of bone metastasis from prostate cancer. We examined the changes in bone scintigraphic findings and the agreement with AlP, AcP, or other tumor markers measured in the follow-up of patients with known bone metastasis after hormonal therapy. Out of 32 patients, 22 (69%) showed improved scintigraphic findings on the first follow-up bone scintigraphy after hormonal therapy. However, 7 out of 22 patients who showed improvement on the first follow-up scintigraphy, deteriorated thereafter. Changes in the scintigraphic findings were closely correlated with those in the measured tumor markers except for patients with small bone metastasis. Though there were no significant differences in the agreement ratios of the 6 tumor markers evaluated, AlP might be a practical and acceptable indicator. Bone X-ray findings did not change at all in almost half of the cases though the scintigraphic findings showed improvement or deterioration.

Key words: bone scintigraphy, prostate cancer, bone metastasis, tumor marker