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Titel des Beitrags:
Isoenzymes of Alkaline Phosphatase -- Useful Parameters for Identification of Bone Metastasis in Prostatic Carcinoma?

Abstract:
Summary Background: The most frequent sites of metastases in prostatic carcinoma are bones. Bone scintigraphy is the diagnostic tool of first choice for staging bone metastases in cancer of the prostate. But this examination is expensive and time-consuming. Therefore we are looking especially for serum parameters like alkaline phosphatase, the isoenzyme of bone-specific alkaline phosphatase, and prostate-specific antigen (PSA) to replace bone scintigraphy for diagnostic staging. Material and Method: We compared in 132 prostatic carcinoma patients the results of total alkaline phosphatase, bone-specific alkaline phosphatase, and PSA with the results of the bone scan. Results: All three parameters demonstrate a lower sensitivity compared to the bone scan. Although the highest specificity was obtained by bone-specific alkaline phosphatase, this parameter cannot replace the bone scan for staging cancer of the prostate because of a lack of sensitivity. In a subgroup of patients with a PSA level below 10 ng/ml and a total alkaline phosphatase within normal range there is no need to obtain a bone scan, because of the very low incidence of bone metastasis in this group. Conclusions: There is only little additional information if bone-specific alkaline phosphatase instead of total alkaline phosphatase is determined. None of the serum parameters examined can replace bone scintigraphy in staging cancer of the prostate, but PSA and alkaline
phosphatase can identify patients who are at low risk for bone metastases. Copyright © 2000 S. Karger GmbH, Freiburg