Batasan prostate specific antigen (PSA) pada pasien kanker prostat untuk memprediksi metastasis ke tulang di Rumah Sakit Sardjito Yogyakarta = Predicting bone metastasis in prostate cancer patients value of prostate specific antigen at Sardjito ZHospital, Yogyakarta / Ahmad Sulaiman Lubis

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Abstrak

ABSTRAK
Tujuan: Mengetahui batasan nilai PSA untuk memprediksi adanya metastasis tulang pada pasien kanker prostat di RS Sardjito. Metode: Penelitian retrospektif, dengan mengumpulkan rekam medis pasien kanker prostat telah dilakukan bone scintigraphy di RS Sardjito tahun 2006 - 2011.
Hasil: Dari 83 pasien kanker prostat yang telah dilakukan bone scintigraphy, terdapat 55 pasien (66%) mengalami metastasis tulang dan terdapat 28 pasien (34 %) yang tidak mengalami metastasis tulang. Dari 55 pasien yang mengalami metastasis tulang, terdapat 11 pasien (20 %) dengan PSA kurang dari 20 ng/ml dan terdapat 44 pasien (80 %) yang memiliki PSA lebih dari 20 ng/ml. Cut-off point PSA 17.65 ng/ml memiliki sensitivitas terbesar yaitu 85.5% dan spesifisitas 53.6%.
Kesimpulan: Pemeriksaan bone scintigraphy dianjurkan pada pasien dengan PSA > 17.65 ng/ml, sedangkan pada pasien dengan PSA < 17.65 dianjurkan pada pasien dengan gejala klinis nyeri tulang.
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ABSTRACT
Objective: Prostate cancer shows a strong predilection to spread to the bones, with bone metastases identified at autopsy in up to 90 % of patients dying from prostate cancer. Serum prostate specific antigen (PSA) concentration has been widely applied as a biomarker to diagnose and monitor prostate cancer. Technetium-99m methylene diphosphate (Tc—99m MDP) whole body bone scintigraphy is currently a well-accepted diagnostic procedure for bone metastasis in malignancy. The aim of this study was to establish a useful serum PSA cut-off value to predict the presence of bone metastasis in men with prostate cancer. Material and Methods: Consecutive male patients diagnosed with prostate cancer were retrospectively analyzed. All of the subjects had received Tc-99m MDP whole body bone scintigraphy and had their serum PSA concentration measured at Sardjito Hospital, Yogyakarta. The proper cut-off value was established based on statistical analysis in order to predict the possibility of bone metastasis among prostate cancer patients.
Results: In total, 83 consecutive male patients with prostate cancer were enrolled, and 55 patients (66 %) were confirmed by scintigraphic findings to have bone metastases. A serum PSA concentration of 17,65 ng/ml gave the best sensitivity (78,33 %) and specificity (65,21 %). The positive predictive value, negative predictive value were 85,45 % and 53,57 %, respectively (p<0,05).
Conclusion: A cut-off value of 17,65 ng/ml appears to be an appropriate benchmark for stratifying metastatic bone disease in prostate cancer patients at Sardjito Hospital, Yogyakarta, such that if a patient with newly diagnosed prostate cancer and without any skeletal symptoms has a serum PSA concentration of less than 17,65 ng/ml,we suggest that they would not need to undergo bone scintigraphy.