

血清PSA及fPSA/tPSA比值在前列腺癌骨转移诊断中的价值

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Title: Value of serum PSA and fPSA/tPSA in the diagnosis of bone metastasis from prostate cancer

作者: 周建平; 张新利; 王春梅; 宋晓龙; 杨茹
陕西省人民医院放免中心, 陕西 西安 710068

Author(s): Zhou Jianping; Zhang Xinli; Wang Chunmei; Song Xiaolong; Yang Ru
Department of Radio Immunity Center, Shaanxi Provincial People's Hospital, Shaanxi Xi'an 710068, China.

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摘要: 目的: 通过分析前列腺癌患者血清中前列腺癌特异性抗原(PSA)浓度和游离前列腺特异性抗原(fPSA)/总前列腺特异性抗原(tPSA)与骨转移的关系, 探讨血清PSA和fPSA/tPSA在诊断前列腺癌骨转移中的价值。方法: 采用电化学发光法检测74例前列腺癌患者血清中的fPSA、tPSA浓度并计算fPSA/tPSA, 并对所有前列腺癌患者进行全身骨扫描显像。结果: 74例前列腺癌患者当中无骨转移的29例, 有骨转移的45例, 分别占前列腺癌患者的39.2%和60.8%。在发生骨转移的前列腺癌患者当中单一病灶的有5例, 占11.1%, 其中3例转移灶在骨盆, 2例在椎体; 转移灶为两处的有3例, 占6.7%; 三处或三处以上转移的有37例, 占82.2%。从骨转移发生的部位来看, 椎体转移的最多, 有35例; 其次为骨盆转移, 有31例; 发生肋骨转移的有28例; 四肢骨转移的有9例; 其它部位转移的有2例。前列腺癌骨转移组和无骨转移组的PSA和fPSA/tPSA分别为(57.68±38.67) ng/ml、0.14±0.08和(21.61±17.87) ng/ml、0.25±0.09, 差异均有统计学意义(P<0.05)。结论: 前列腺癌骨转移以多发病灶为主, 且病灶主要发生在脊柱和骨盆。前列腺癌患者随血清PSA浓度的升高, fPSA/tPSA比值降低, 发生骨转移的比例增高, 当PSA>20.00 ng/ml或fPSA/tPSA≤0.15时, 诊断前列腺癌骨转移的灵敏度和特异度较高。

Abstract: Objective: To evaluate the value of serum PSA and fPSA/tPSA in the diagnosis of bone metastasis from prostate cancer by analyzing the relationship between bone metastasis with serum PSA and fPSA/tPSA in prostate cancer patients. Methods: Serum fPSA and tPSA of 74 cases of patients with prostate cancer were measured by automatic electrochemiluminescence analyzer and fPSA/tPSA ratio was calculated. Systemic bone scan imaging was performed for all prostate cancer patients. Results: Of the 74 cases of prostate cancer, 29 patients had no bone metastasis, 45 of them had bone metastases, accounting for 39.2% and 60.8% of prostate cancer patients respectively. There were 5 cases of single lesion in prostate cancer patients with bone metastasis, accounting for 11.1%, 3 of them in pelvis and 2 in vertebral body. There were 3 cases of metastases at two, which accounted for 6.7%. 37 cases, or 82.2%, were three metastases or more. From the site of bone metastasis, there were 35 cases of vertebral metastases. There were 31 cases of pelvic metastases. There were 28 cases of rib metastases, 9 of the four limbs were transferred, and 2 were transferred from other parts. Serum PSA and fPSA/tPSA of bone metastasis group and non-bone metastasis group in prostate cancer were respectively: (57.68±38.67) ng/ml, 0.14±0.08, (21.61±17.87) ng/ml, 0.25±0.09, the difference was statistically significant (P<0.05). Conclusion: The bone metastasis from prostate cancer is mainly focused on multiple lesions, and the lesion mainly occurs in the spine and pelvis. The incidence of bone metastasis increased with going up of serum PSA concentration or going down of fPSA/tPSA. When PSA>20.00 ng/ml or fPSA/tPSA≤0.15, the sensitivity and specificity of diagnosis bone metastasis from prostate cancer are higher.

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