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SERUM OSTEOCALCIN CONCENTRATION IN PATIENTS WITH PROSTATIC CARCINOMA

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Most circulating osteocalcin, the vitamin K dependent bone protein, is derived from the osteoblastic cell population and reflects the formation of mineralized bone. It is well known that sclerotic bone metastases from prostatic carcinoma are commonly associated with increased serum alkaline phosphatase levels in response to the osteoblastic activation induced by metastatic cells. We measured the serum concentration of osteocalcin (OC) and alkaline phosphatase (AP) in 36 males: 18 healthy controls and 18 patients with prostatic carcinoma (10 osteosclerotic metastases, 3 osteosclerotic and osteolytic metastases and 5 no bone metastases). Our results indicate that AP and OC serum levels were higher in patients with sclerotic bone metastases than in patients with mixed metastases. In subjects without overt metastases, AP and OC levels were normal. Patients with sclerotic bone metastases undergoing chemotherapy showed that the two markers varied according to the response to therapy and the clinical course of the disease.

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CHEMOTHERAPY OF ADVANCED PROSTATIC CANCER WITH EPIRUBICIN

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Eight patients with metastatic prostatic carcinoma refractory to hormonal treatment were treated with epirubicin (30 mg/m^2 per week for six weeks). Before and during the treatment non-invasive poligraphic study of systolic time intervals (PEP/LVET ratio) and hematological parameters were evaluated. At the end of the treatment 4 patients achieved a partial response, while in the other 4 patients the disease was established. In 6 cases the analgesic drug intake was significantly reduced, and the biomarkers of osteoblastic activity (serum alkaline phosphatase and osteocalcin) significantly decreased. The PEP/LVET ratio was not modified on therapy demonstrating so that the fractional administration of epirubicin could reduce its cardio-toxicity. The follow-up of the patients over a month after the end of therapy showed an increase in analgesic drugs consumption and in serum levels of biomarkers. Our study indicate that the epirubicin regimen may give immediate results, with an acceptable toxicity.

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PSA: MANAGEMENT OF 500 PROSTATIC PATIENTS.

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Prostatic cancer is one of the most common cause of death in man. Survival and therapeutic response are better in patients diagnosed with early disease. The search for a high sensitive prostate tumor associated marker, sufficien tly reliable for the earliest diagnosis and the best therapeutic monitoring is a major objective. Prostate Specific Antigen (PSA), a glycoprotein of 34000 molecular weight without known biological function,might be this marker.
Blood samples of 500 patients with clinical prostatic symptoms were tested with PSA (Pros Check PSA Yang-Travenol) and PAP (Travenol) Radio Immuno Assay kits.
On the base of histological data, directed by PSA results and other investigations, mainly ultrasonography and bone scintigraphy,we detected:200 prostatic cancers,276 Benign Prostatic Hyperplasias (BPH) 16 prostatitis, 5 cancers of the bladder, and 3 prostatodynias.
All the samples from prostatic cancer patients had elevated PSA serum levels, at diagnosis.About 70% had normal PAP values. Sensitivity is 100% regarding 2,5ng/ml as upper limit of normal values.The specificity and the positive predictive value are better with PSA 10ng/ml:respectively 99% and 79%. High RIA PSA values have been able to alert the clinician who diagnosed a cancer without symptom on rectal an ultrasonographic examination (3%).In BPH,when PSA is between 2,5 and 10ng/ml, a control must be done. If PSA increases above 10ng/ml cancer risk has to be considered. In the follow up, PSA is a better marker than PAP to detect disease progression.
PSA is the more sensitive, the earliest and the most prognostically reliable marker for diagnoseand follow up of prostate cancer patients.

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LATENT AND CLINICALLY MANIFEST PROSTATIC CARCINOMA

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The natural history of prostatic carcinoma, whether it originates from a single focus or multiple foci and whether it becomes manifest in later decdes of life after many years of a latent period, remains to be elucidated. The present study is an attempt to resolve the inconsistency concerning these problems through the pathological study on multiple large sections of the whole prostates excised in toto for advanced primary carcinomas. We performed 17 total retropubic prostatectomies on histologically proved stage B and C prostatic carcinomas in the last three years. The prostates were fixed in 10% formalin and cut into 5 to 6 slices in planes perpendicular to urethral canal. Sections including the whole cut surface were taken for histological study from every slice, stained with hematoxylin and eosin, and mounted on large slides. In historogical study of 17 prostates, we found one focus of well differentiated carcinomas in 6 prostates which, in addition to those foci, had large tumors of invasive prostatic carcinoma. In 4 of the 6 prostates, those foci were located near but separately from the main tumor and in the remaining 2, they were invaded by the main tumor. These findings strongly suggest that prostatic carcinoma be multifocal in origin, and that focal well differntiated carcinomas be differnt in biological behavior from invasive poorly differntiated carcinomas