

OVERVIEW

Premalignant and Early Malignant Lesions of the Prostate

The first session of the conference defined the spectrum of putative premalignant and early malignant lesions of the prostate, recognizing that the "gold standard" for diagnosis is the morphologic (light microscopic) appearance. Prostatic intraepithelial neoplasia (PIN), the most likely precursor to invasive cancer, was discussed, with review of the diagnostic criteria and clinical significance. Nagle presented new data concerning the immunophenotypic relationship of PIN and invasive cancer, reporting that expression of 72 kDa and 92 kDa type IV collagenase is seen in low grade and high grade PIN and prostatic adenocarcinoma, but not in luminal secretory cells of the normal prostatic epithelium. Further, expression of the 72 kDa type decreased with increasing grades of cancer, whereas the 92 kDa type increased. Tissue inhibitor metalloproteinase (TIMP2) expression was seen in 3 of 63 cases. These results support previous findings that the cells of PIN are armed with proteases to invade the basement membrane, but tumor progression requires protease activation.

Thompson and Chodak discussed the cost:benefit ratio of early detection of prostate cancer. Most cancers are relatively slow-growing, and patients com-

monly die of other causes during long-term follow-up. The most significant issue is how to identify those patients who will progress from those who will not within the expected lifetime of the patient. New markers or combinations of markers are needed to address this issue and allow stratification of patients into appropriate treatment groups. The ten year mortality from prostate cancer is relatively low, and the argument was raised whether early detection programs are cost-effective. Problems with existing studies include underestimation of cause-specific survival due to erroneous abstractions of cause of death, patient age stratification, and contamination of groups of untreated patients with those who received treatment when the tumor recurred or progressed. The issue of early detection remains a significant social concern because of the potentially enormous financial costs involved.

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