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EDITORIAL

Experimentelle Urologie in *Urological Research*

This issue of *"Urological Research"* contains 4 papers selected from among 145 presentations given at the 11th symposium in the series "Experimentelle Urologie", held in Wuppertal, on October 15 through 17, 1992. This meeting marked the 20th anniversary of biannual meetings devoted solely to research in urology, which were initiated in 1972 in Cologne.

The symposium in Wuppertal combined basic and clinical research in the fields of urological oncology, physiology, urodynamics, andrology and impotence, urolithiasis and surgical techniques. It brought together basic science and academic clinical urology, with the aim of stimulating new ideas and concepts and improving coordination of planning and conduct of research in both sectors. If basic research is tied in with clinical requirements it may be more effective in providing the experimental basis for innovations and progress in diagnosis and therapy of urologic diseases. The 4 selected papers dealing with various urologic cancers present research that is closely related to clinical problems, such as judgement of the prognosis of disease (Bürger et al., Heicappell et al., Oberneder et al.,) and improvement of therapy (Bachor et al.).

Bürger et al. used single-cell automated DNA cytometry for analysis of different types of testicular germ cell tumors and found similar DNA indices in HCG-positive seminomas and in embryonal carcinomas, which were lower than those, in HCG-negative seminomas. Furthermore, the 5c excess rate correlated with the incidence of retroperitoneal lymph node metastases. Both indices may be used in the future for better adjustment of the aggressiveness of treatment of tumors.

Heicappell et al. applied a monoclonal antibody against the intracellular adhesion molecule-1 (ICAM-1) for immunohistochemistry of renal cell cancer (RCC), normal kidney, and metastases from RCC. In addition, an enzyme-linked immunoassay (ELISA) was used for determination of serum ICAM-1 in the same patients. Lack of cell-bound ICAM-1 expression in renal cell tumors and metastases and elevated levels of serum ICAM-1 were correlated with a poor prognosis in RCC.

Oberneder et al. used a monoclonal antibody against cytokeratin 18 (CK18) and a monoclonal antibody against PSA for double immunocytochemistry of bone marrow aspirates from patients with non-metastatic prostate cancer. Demonstration of CK18-positive cells allows early diagnosis of occult tumor cell dissemination, and it was found in 35% of 87 patients with prostate cancer but never in normal controls. Double immunocytochemistry, with the addition of a monoclonal antibody against PSA, labeled 33% of these cells as clearly of prostatic origin. In the future, early hormone treatment may be instituted in patients with corresponding findings in the bone marrow aspirate.

Bachor et al. used a rat model, with cultured rat bladder cancer cells injected into the bladder and treated by photodynamic therapy. They compared intravenous and topical intravesical administration of a hematoporphyrin derivative as photosensitizer. After either mode of administration, concentration of the photosensitizer in the tumor was about double the concentration in a normal bladder and the effects of photodynamic therapy were comparable. Thus, the known side effects and drawbacks of intravenous administration of photosensitizers for photodynamic therapy could be avoided with future protocols using topical intravesical instillation.

The symposium was well-received; there were about 250 participants, and discussion was lively. The 12th symposium in the series "Experimentelle Urologie" will be organized by Kurt Miller in 1995.

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