

## **S16. Prevention of Prostate Cancer: More Questions than Data!**

H. Schmid, D.S. Engeler

*Kantonsspital St. Gallen, Department of Urology, CH-9007 St. Gallen, Switzerland*

Established risk factors for prostatic adenocarcinoma include increasing age, ethnical origin (race) and familial/hereditary factors. Moreover, the epidemiology of the disease gives some indications that its etiology is probably not only genetic but also environmental. Pathological studies support the fact that geographic differences in incidence and prevalence are not due to genetic variations as men with the same genetic background raised in different environments present the risk of prostate cancer associated with their country of residency.

Prostate cancer is basically an ideal candidate for exogenous preventive measures, such as dietary and pharmacological prevention, due to some specific features: high prevalence, long latency, endocrine dependency, availability of serum markers (prostate specific antigen) and histological precursor lesions (prostatic intraepithelial neoplasia).

Dietary/nutritional factors that may influence disease

development include total energy intake (as reflected by body mass index), dietary fat, cooked meat, micronutrients and vitamins (carotenoids, retinoids, vitamins C, D and E), fruit and vegetable intake, minerals (calcium, selenium) and phytoestrogens (isoflavonoids, flavonoids, lignans). Pharmacological prevention may use drugs that act on intraprostatic testosterone metabolism (finasteride, dutasteride) or induce apoptosis and inhibit tumor growth and metastasis (statins).

Since most studies reported to date are case-control analyses, there remain more questions than evidence based data. However, several large randomised trials are ongoing to clarify the potential for successful prostate cancer prevention. Until we have the results, lifestyle changes could be recommended to men at risk for developing clinical prostate cancer (Aus G et al., EAU guidelines for prostate cancer, March 2005).