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Session: **Open and laparoscopic radical prostatectomy**

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Room: **Room 2**

## **Biochemical progression in patients with prostate carcinoma with positive tumour margins after radical prostatectomy**

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### **Introduction & Objectives:**

Positive tumour margins occur frequently during radical prostatectomy and are often a predictor of biochemical progression of disease. We have evaluated the role of different preoperative and postoperative variables on biochemical progression in prostate carcinoma patients with positive margins after radical prostatectomy.

### **Material & Methods:**

The study population consisted of 218 patients with positive tumour margins who underwent radical retropubic prostatectomy and pelvic lymphadenectomy between August 1993 and June 2003. The demographic and tumour-specific data were collected from hospital records; the data from PSA follow up were taken from the medical records of referring urologists. Biochemical progression was defined as PSA elevation  $\geq 0.4$  ng/ml.

### **Results:**

The median follow-up time was 26 months. Biochemical progression was recorded in 30% of patients. In 60% of the group with progression, elevated PSA values were measured during the first 12 month after prostatectomy. The preoperative variables found to exert a significant influence on the occurrence of biochemical progression in the univariate analysis were: preoperative hormonal treatment, clinical stage and PSA value. The postoperative variables found to exert a significant effect by univariate analysis were: pathological stage, Gleason score, lymph node status, seminal vesicle invasion, number of positive margins and the location of positive margins. During multivariate analysis only preoperative PSA and seminal vesicle invasion were significant. None of the patients with solitary dorsal or ventral tumour positive margins – and only 5.1% of the 39 pT2 tumours – exhibited biochemical progression. In patients with solitary apical tumour positive margins or a postoperative

Gleason score of 2-6 or the absence of seminal vesicle invasion, biochemical progression was observed in 16.7 %, 21.2% and 15.6 %, respectively, of cases.

**Conclusions:**

At the short-term follow up only a few of the patients with pT2 tumours and none of the patients with solitary dorsal or ventral tumour positive margins exhibited biochemical progression. Furthermore, progression was rare in patients with solitary apical tumour positive margins or a postoperative Gleason score of 2-6 or the absence of seminal vesicle invasion. In all these patients immediate adjuvant treatment should be considered carefully.