

## SHORT COMMUNICATIONS

**First experience with photoselective vaporization of the prostates in the treatment of high-risk patients receiving antiaggregant therapy**

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Photoselective laser vaporization prostatectomy (PVP) with a high-power potassium-titanyl-phosphate (KTP) laser is a perspective minimally invasive method in surgical treatment of obstruction caused by benign prostate hyperplasia (BPH). This study evaluate the first experience with PVP in the treatment of patients receiving antiaggregant therapy with symptomatic BPH.

**Materials and methods**

29 patients receiving antiaggregants were treated from July 2006 to July 2007 with PVP for lower urinary tract symptoms (LUTS) due to BPH. Patients with cystolithiasis, prostate volume over 150 ml, large middle lobe and suspicious prostate cancer were not included. IPSS, quality of life score (QoL), maximum urinary flow rate (Qmax) and postvoid residual urine volume (PVR) were evaluated in all patients before and after the operation. The preoperative volume of the prostate was measured by transrectal ultrasonography (TRUS). Other evaluated parameters were operative time, energy consumption in Joules, decrease of hemoglobine and administration of blood transfusion after operation, postoperative natriemia and the duration of indwelling catheterization of the bladder. Follow-up was performed 1, 3, 6 and 10 months after PVP.

**Results**

The average age was 70 (54–82) years. Three men had urethral catheter before surgery. The mean preoperative volume of

the prostates was 46 ml (14–120 ml). The mean ASA score was 2.25 (1–3), the average use of energy was 196 080 J (75–275 kJ) and average operative time was 74 min (35–115 min). Duration of indwelling catheterization was 28.8 hours.

No patient required blood transfusion. The mean postoperative hemoglobin was 132.6 g/L (100–155 g/L), decrease of hemoglobin was 6.8 g/L and natriemia was 138.7 mmol/l (133–144 mmol/l). 14 patients (56 %) were temporary treated by antimuscarinics because of heavy urgency. Stricture of the urethra was found in two patients 3 months after PVP. 10 months after operation IPSS and QoL decreased from 20.5 to 7.6, resp. 3.5 to 1.6, PVR 68.6 to 23.1 ml and Qmax increased from 10.1 to 22.3 ml/s.

**Conclusions**

Laser photoselective vaporization of the prostate conforms the criteria of minimally invasive surgical method, provide perfect hemostasis with minimal risk of TUR-syndrome. At the same time, PVP effectively remove prostatic tissue with the need of short bladder drainage. The combination of these characteristic is suitable for surgical treatment of high-risk patients with symptomatic BPH.

This study was presented at the Meeting of the Slovak Medical Society, on the November 12, 2007, in Bratislava.

**Low capacity urinary bladder and its recovery after kidney transplantation**

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To follow the recovery of pre-transplant low capacity urinary bladder after restoring normal diuresis by the transplanted kidney.

**Patients and methods**

Retrospective study in patients anuric prior to kidney transplantation (daily diuresis less than 100 cc/24 hours).

17 patients (13 males and 4 females) have been evaluated after a period of 38 months of pre-transplant anuria. Quality of urination was subjectively assessed by the I-PSS and QoL questionnaires. Objective parameters of urination included flowmetry (maximum and average urinary flow), functional bladder capacity measurement and post void residual urine measurement. The

patients underwent functional evaluation of the lower urinary tract in average 29 months (3–48) after kidney transplantation. Function of transplanted kidney was stable at that time, average serum creatinine level was 120 µmol/l (96–160).

**Results**

Subjective assessment of quality of urination revealed the international symptom score 2.8 (0–9) and quality of life score 0.5 (0–2) in males. In females, I-PSS score was 9.8 in average (2–13) and quality of life score 1.3 (0–2). Uroflowmetry in males revealed maximum urinary flow 22.1 ml/sec (14.6–29.8) and average flow 11.9 ml/sec (8.5–16.1). In females, maximum recorded urinary flow was 33.7 ml/sec (15.8–48.8) and average urinary flow 16.6 ml/sec (11–22.3). Functional bladder capacity in both

analyzed groups of patients was 432 ml on average (142–934 ml) and the volume of post void residual was 0–20 ml.

#### Conclusions

In anuric patients, who did not undergo any bladder operation with subsequent scaring before kidney transplantation (usually ureteral neoimplantation); we did not find the need for preoperative bladder hydrodilatation. Recovery of spontaneous diuresis and natural filling and emptying of the urinary bladder led

to spontaneous rehabilitation and finally to complete normalization of the lower urinary tract function.

Not even in one patient there was a need to solve the problem of low capacity urinary bladder by surgical bladder reconstruction.

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This study was presented at the Meeting of the Slovak Medical Society, on the November 12, 2007, in Bratislava.

## LETTER TO EDITOR

# Gender effect on hepatocellular carcinoma

Levent Filik

Dear Editor,

Hepatocellular carcinoma (HCC) is increasing in frequency in the world (1–3). Similarly, HCC is an important health problem in the countries with high frequency of hepatitis B carrier and chronic viral hepatitis such as Turkey. HCC, the most common liver cancer, occurs mainly in men (1,2). Men are affected three times more frequently than women (2). A recently published article highlighted this issue and documented the gender effect on HCC. In this article, similar gender disparity is seen in mice given a chemical carcinogen, diethylnitrosamine (DEN). DEN administration caused greater increases in serum interleukin-6 (IL-6) concentration in males than it did in females. Furthermore, ablation of IL-6 abolished the gender differences in hepatocarcinogenesis in mice. DEN exposure promoted production of IL-6 in Kupffer cells (KCs) in a manner dependent on the Toll-like receptor adaptor protein MyD88, ablation of which also protected male mice from DEN-induced hepatocarcinogenesis. Estrogen inhibited secretion of IL-6 from KCs exposed to necrotic hepatocytes and reduced circulating concentrations of IL-

6 in DEN-treated male mice. Accordingly, authors suggested that estrogen-mediated inhibition of IL-6 production by KCs reduces liver cancer risk in females, and these findings may be used to prevent HCC in males.

This relationship provide us new prevention and treatment strategies against HCC in our country.

#### References

1. Naugler WE, Sakurai T, Kim S, Maeda S, Kim K, Elsharkawy AM, Karin M. Gender disparity in liver cancer due to sex differences in MyD88-dependent IL-6 production. *Science* 2007; 317 (5834): 121–124.
2. El-Serag HB. Epidemiology of hepatocellular carcinoma in USA. *Hepatol Res* 2007; 37 (Suppl 2): S88–94.
3. Sander LE, Trautwein C, Liedtke C. Is interleukin-6 a gender-specific risk factor for liver cancer? *Hepatology* 2007; 46 (4): 1304–1305.