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URODYNAMIC EVALUATION OF PATIENTS WITH INTERSTITIAL BRACHYTHERAPY FOR PROSTATE CANCER

Aims of Study

To evaluate micturition disorders in patients with iodine seed implants for prostate carcinoma. These were found to have a prevalence of up to 40 % [1].

Methods

19 male patients (age 55-82 yrs.) underwent urodynamic investigation before and after iodine seed implantation for prostate cancer (<pT2a, PSA <10, Gleason sum <7). IPSS and micturition diary were also investigated.

Results

Micturition frequency was before OP 5,6 times daily, at night 3,3 times; after OP daily 8,0 times at night 5,5 times. 17 patients (89%) stated they had normal micturition, post-OP 9 (47%) complained about voiding disorders. IPSS was before OP 5,5; afterwards 16,3*. Urodynamic findings were:

| | before-OP | 6 weeks after-OP |
|----------------|-------------|------------------|
| 1. desire | 243,5 ml | 167,89 ml * |
| Capacity | 371,4 ml | 224,63 ml * |
| Max. Pdet | 80,9 cm H2O | 115,6 cm H2O * |
| Qmax | 9,7 ml/s | 5,4 ml/s * |
| Residual Urine | 31,9 ml | 92,0 ml * |

*: p<0,05 (Student's t-Test)

Detrusor instability was seen before-OP in 2, after-OP in 5 patients.

Conclusions

The Patients in this collective showed signs of infravesical obstruction even before the operation thus stating they had no voiding problems. The effects of seed implantation are obstruction (Pdet, Qmax, Residual urine) but also an irritative component (first desire, capacity) was observed. The obstruction could be explained with increase of prostatic volume (36,3 to 49,3 ml in 45 patients, published elsewhere [1]). The irritation might be due to radiation side effects, there are no comparable data in current literature). Since predictive parameters were not observed, it remains crucial to monitor patients' voiding parameters after seed implantation in order to avoid damage to the upper urinary tract.

[1]: Weiss-J, Frede-T, Musial-M, Maurer-U, Georgi-M, Siegsmund-M, Alken-P:
Blasenentleerungsstörung: die häufigste ernsthafte Komplikation nach Brachytherapie des Prostatakarzinoms
mittels
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