

PP33

FOCAL THERAPY WITH HIGH- INTENSITY FOCUSED ULTRASOUND FOR LOCALIZED PROSTATE CANCER: 3-YEAR FOLLOW-UP

I. Lumpov, A. Amosov, G. Krupinov

I.M. Sechenov First Moscow State Medical University, Moscow, Russia

Introduction: HIFU of the prostate offers a selective way to destroy the tumor without having patients undergo TURP. Being an alternative to radical treatments and active monitoring, HIFU minimizes adverse effects on patients' quality of life. In this report, we share our first clinical experience of HIFU.

Materials & Methods: The study included 35 patients with unifocal localized prostate cancer (Gleason score ≤ 7 ; cancer was diagnosed with a biopsy involving one lobe, from where at least 2 samples were obtained) who were treated and at the First Sechenov MSMU, Department of Urology (Moscow, Russia) between 2013 and 2016. Patients with cancer at the apex were excluded. The mean PSA level before treatment was 7.8 ng/ml. The mean age of the patients was 65 years. The prostate volume ranged between 23 and 100 cm³. The mean maximum urine flow rate was 17 ml/sec. All patients had contrast-enhanced MRI scans and HistoScanning-aided transrectal puncture biopsies performed. 7 patients had TURP performed before HIFU to decrease the prostate volume. HIFU was performed using the Ablatherm[®] device (EDAP TMS, France) to treat the left prostatic lobe in 18 patients and the right prostatic lobe in 17 patients. Each lobe was treated starting from the lateral contour of the prostate, at a distance of 5 mm from the apex, and down to the transition zone. The mean length of surgery was 25 minutes.

Results: The mean postoperative hospital stay was 4 days. The mean follow-up was 18 months. At 3 months of follow-up, the lowest PSA nadir levels (a mean of 2.4 ng/ml) were observed. At 12 months of follow-up, no major complications were reported, except irritative symptoms and an insignificant decrease in the urinary flow rate. All patients had contrast-enhanced MRI scans and control biopsies performed. The biopsy showed residual cancer in 3 patient, after 12 months. No diagnostically significant increase in PSA levels was noted at 1 year. The IIEF-5 showed no significant negative impact on the erectile function, although 7 patients had retrograde ejaculation.

Conclusions: Our results suggest that focal therapy with HIFU is a highly effective procedure for the treatment of prostate cancer in low-risk patients with unifocal cancer. However, some tumors may have been underestimated.