

# First French Cases of Localized Prostate Cancer Treatment by Focal Laser Ablation (FLA)

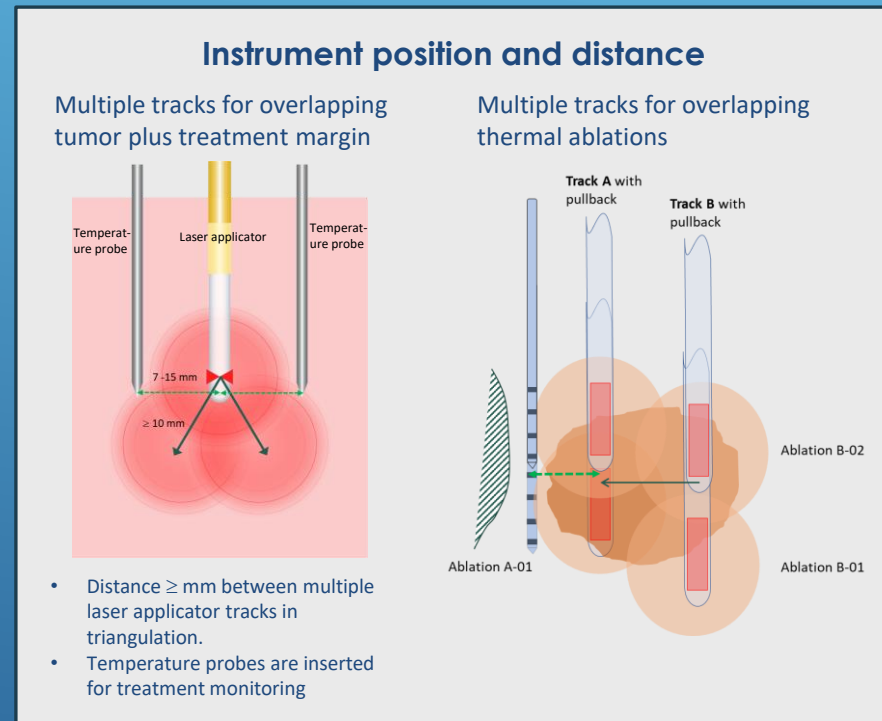
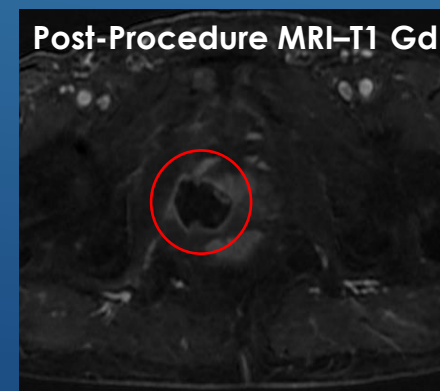
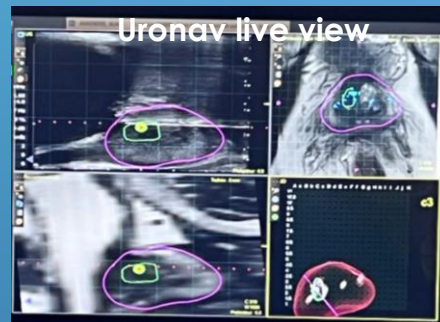
## Using TRANBERG® Thermal Therapy System *Dr Pierre Charles Henry and Dr Vincent Bailly, Besançon, France*



➤ **Introduction and Objective:** The purpose of this prospective case series was to evaluate the feasibility, risks, side effects, and outcomes of treating lateral and anterior lesions of localized prostate cancer using Focal Laser Ablation (FLA).

➤ **Materials and Methods:** Five patients were included from November 2023 to May 2024 as part of the French MRI PROFIT study. Patients with ISUP 1 or 2 were eligible. All underwent a 3T MRI (GE) and targeted (4) and systematic (6) biopsies using a transperineal approach with the UroNav platform. Patients with a single anterior or lateral lesion were treated under general anesthesia with ultrasound guidance (BK 5000) and the UroNav fusion system. A diode laser (1064 nm, 7-8 W) and thermal probe with four sensors were used, aiming for a treatment area of approximately 18 mm axially and 12 mm in width. Depending on lesion size, two or three tracks were used for triangulation. Post-treatment MRI at 10 days evaluated the ablation zone.

➤ **Results:** The mean age was 68.06 years, with a PSA level of 8.08 ng/ml. The average prostate volume was 38.2 cc, and lesion size was 9.4 mm. PI-RADS scores were 3 to 5. Two patients upgraded from ISUP 1 to ISUP 2 due to lesion progression. The mean number of positive biopsies was 2.8, with a tumor length of 8.2 mm per needle. Procedure time averaged 14.6 minutes, delivering 6166.2 joules. Post-treatment, the mean PSA level at 3 months was 3.01 ng/ml. No major side effects were reported; one case of urinary infection was treated with antibiotics, and mild urinary burning occurred in three patients. Erectile function remained unchanged.



➤ **Conclusions:** FLA appears effective for treating anterior and lateral prostate areas in localized cancer (ISUP 1 or 2), with minimal side effects. The technique is faster and more cost-effective than MRI-guided methods, offering comparable outcomes with real-time temperature control and reliable safety margins.

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