**transperineal prostate biopsy in local anesthesisa. A simple, safe and cost effective out patient procedure**

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**Introduction and objectives:**infectious complications after transrectal prostate biopsy (TRUS Bx) are a major concern. Approximately 6% of men develop infections after TRUS-Bx. Antimicrobial resistance is rising end therefore an alternative and clean approach to the prostate is emerging. The video demonstrates a technique of an ultrasound guided transperineal approach by two percutaneous puncture sites in local anesthesia.

**material and methods:** between january 2015 and march 2017 212 consecutive patients underwent transperineal prostate biopsy in local anesthesia. A single oral dose of fluoroquinolone (500mg) is administered at least one hour before the procedure.The patient is placed in a lithotomy position. After preparation of the perineum, the rectal ultrasound probe (linear rectal probe, 7.5 MHz) is introduced. The prostate is visualised, measured and suspicious lesions are noted. Local anesthesia is applied on each side of the midline using a total of 20ml of 1% lidocaine. A 14-gauge cannula is placed into the perineal skin on each side oft he midline (double puncture technique) and is used as an access sheath for the biopsy gun. Three separate regions (anterior, middle and dorsal) are sampled on each side of the prostate. After the procedure the patient fills out a numerous pain score (0-10) and is discharched.

**results:**212 patients at a mean age of 66.3 (range 49-84) years and a mean PSA of 5.9 ng/ml (0.3- 600) were analyzed. Median number of cores taken was 12.0 (4-18). No infections and no hospitalisation occured. Gross hematuria was self limiting in all patients. 2 (0.9%) patients experienced acute urinary retention. Cancer detection rate was 131/212 (61.8%). Mean pain score was 2.0 (0-8). The expenses and time consumption of the procedures were equal to the traditional TRUS Bx.

**conclusion:**Transperineal prostate biopsy in local anesthesia is a safe, effective and well tolerated out patient procedure. The elimination of infectious complications, a high cancer detection rate make this new technique an excellent and cost effective alternative to the traditional transrectal approach.