

TRANSRECTAL ULTRASOUND (TRUS) GUIDED BIOPSY OF THE PROSTATE

Information for patients

Introduction

- Transrectal ultrasound (TRUS) is a procedure that uses ultrasound wave to create a video image of the prostate gland. A small, lubricated probe is placed into the rectum to release the ultrasound wave.
- If prostate cancer is suspected, a biopsy can be performed with the help of TRUS. The ultrasound probe is fitted with a special needle guide which accommodates a thin needle. The needle is equipped with or mounted in a spring-loaded device that rapidly passes the needle through the wall of the rectum into the prostate gland. Small samples of tissue are removed from the prostate gland and examined under the microscope by a pathologist.
- This procedure will be performed by radiologists with special training in interventional radiology, or by surgeons with special training in urology.

Procedure

- The patient may be instructed to have an enema prior to the procedure to remove most faeces and gas from the rectum.
- Oral antibiotics will be given to the patient to take before and after the biopsy to protect against possible infection.
- To limit the risks of bleeding, patients may be advised to stop taking aspirin and other blood thinning medications several days before the biopsy.
- Local anesthesia is generally not required.
- During the biopsy, six or more samples of tissue are usually obtained.
- The procedure generally takes less than 30 minutes.
- It will take a few days to do all the necessary tests on the specimen to give the result of the biopsy.

Potential Complications

- Minor complications are frequent (range 60-79%) and major complications are rare (range 0.4-4.3%). The need for hospitalization is less than 4%.
- Bleeding complications are the most common complications and include:
 - Hematuria (blood in the urine): very common (more than 50%) and usually mild. It may persist for 3-7 days after the procedure and even longer in some patients.
 - Hematospermia (blood in the semen): common (average ~30%) and can persist up to a month.
 - Hematochezia (rectal bleeding): less common (less than 10%) and is usually quickly resolved.
- Severe bleeding that requires intervention is rare.
- Infectious complications may occur in a small proportion of patients despite antibiotic prophylaxis, and are potentially the most serious complications.
- Symptoms and signs of infection include:
 - Fever.
 - Chills.

- Dysuria (pain with urination).
- Other general signs of infection.
- Positive cultures of bacteria in urine or blood.
- Spread of infection to the spine has been reported in the literature but is very rare.
- Death caused by infection is very rare.
- Other complications include vasovagal episodes (feeling dizzy), vague pelvic discomfort or pain, difficulty in voiding and urinary retention.
- Spread of tumor along the needle tract is very rare.
- Early recognition and intervention is important to avoid bad consequences. If worrisome symptoms occur, they should be reported to a doctor promptly.
- Unfortunately, biopsy of the prostate is not completely accurate, and a proportion (up to a fifth) of small tumors can be missed. If the biopsy is negative and the clinical suspicion is still high, a further biopsy may be needed on another day.

Disclaimer

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