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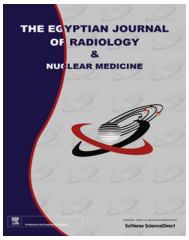

ORIGINAL ARTICLE

Local anesthesia by periprostatic block in transrectal ultrasound guided prostatic biopsy

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KEYWORDS

TRUS-guided prostatic biopsy;
Local anesthesia in prostatic biopsy;
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Abstract *Objective:* To evaluate the efficacy of local anesthetic by peri-prostatic block in decreasing the pain and discomfort experienced by patients undergoing transrectal ultrasound (TRUS)-guided biopsy of prostate.

Patients and methods: Fifty patients were submitted for TRUS-guided prostate biopsy. Patients were randomized in two groups: group-I, with 25 patients submitted to local anesthesia by 5 ml of 1% lidocaine injected at each side at the Mount of Everest and group-II, with 25 patients who underwent TRUS biopsy by conventional method with local xylocaine cream. After biopsy, patients were questioned about pain intensity during the procedure, using a grading scale from 0 to 10. Side effects and later complications of the procedure were also evaluated.

Results: Group I patients with peri-prostatic block had a significantly lower pain score compared with group II without LA. In LA group the mean pain scores were 3.0 ± 1.8 and in group II patients with conventional method of biopsy it was 6.4 ± 2.2 ($p < 0.001$). There were no significant problems associated with LA infiltration.

Conclusion: TRUS-guided prostate biopsy is a traumatic and painful experience, but the peri-prostatic blockage use is clearly associated with more tolerance and patient comfort during the exam.

1. Introduction

Transrectal ultrasound-guided prostate biopsy became essential in diagnostic investigation of patients with clinical suspicion of prostatic neoplasia due to gland alterations on physical examination, or rising of the prostatic specific antigen (PSA) [1,2]. Prostatic biopsy indication is increasing in the last years owing to increase in life expectancy, better diagnostic methods, and Public Health Campaign intensification [3,4].

This procedure is performed on most centers, without any kind of anesthesia or sedation [5,6]. Besides the embarrassment

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and the anxiety, this exam is almost always accompanied by pain sensation, because of transrectal ultrasonography (TRUS) probe introduction, or by biopsy itself [7]. Some series show that 11–90% of patients have pain during the exam, making the realization of this diagnostic procedure traumatic [8,9]. However, the method of pain measurement by several studies has been subjective, underestimating sometimes the real upset suffered by the patients.

Recently there has been increasing interest in various methods for providing local anesthesia during the procedure.

Our aim was to evaluate the efficacy of local anesthetic by peri-prostatic block in decreasing the pain and discomfort experienced by patients undergoing transrectal ultrasound (TRUS)-guided biopsy of prostate.

2. Patients and methods

Between May 2012 and January 2013 fifty patients were referred to our department at Ain Shams University hospitals for TRUS biopsy and were included in our study.

Inclusion criteria for biopsy included (1) Abnormal digital examination, and/or (2) Abnormal TRUS, and/or (3) Elevated PSA (> 4 ng/ml).

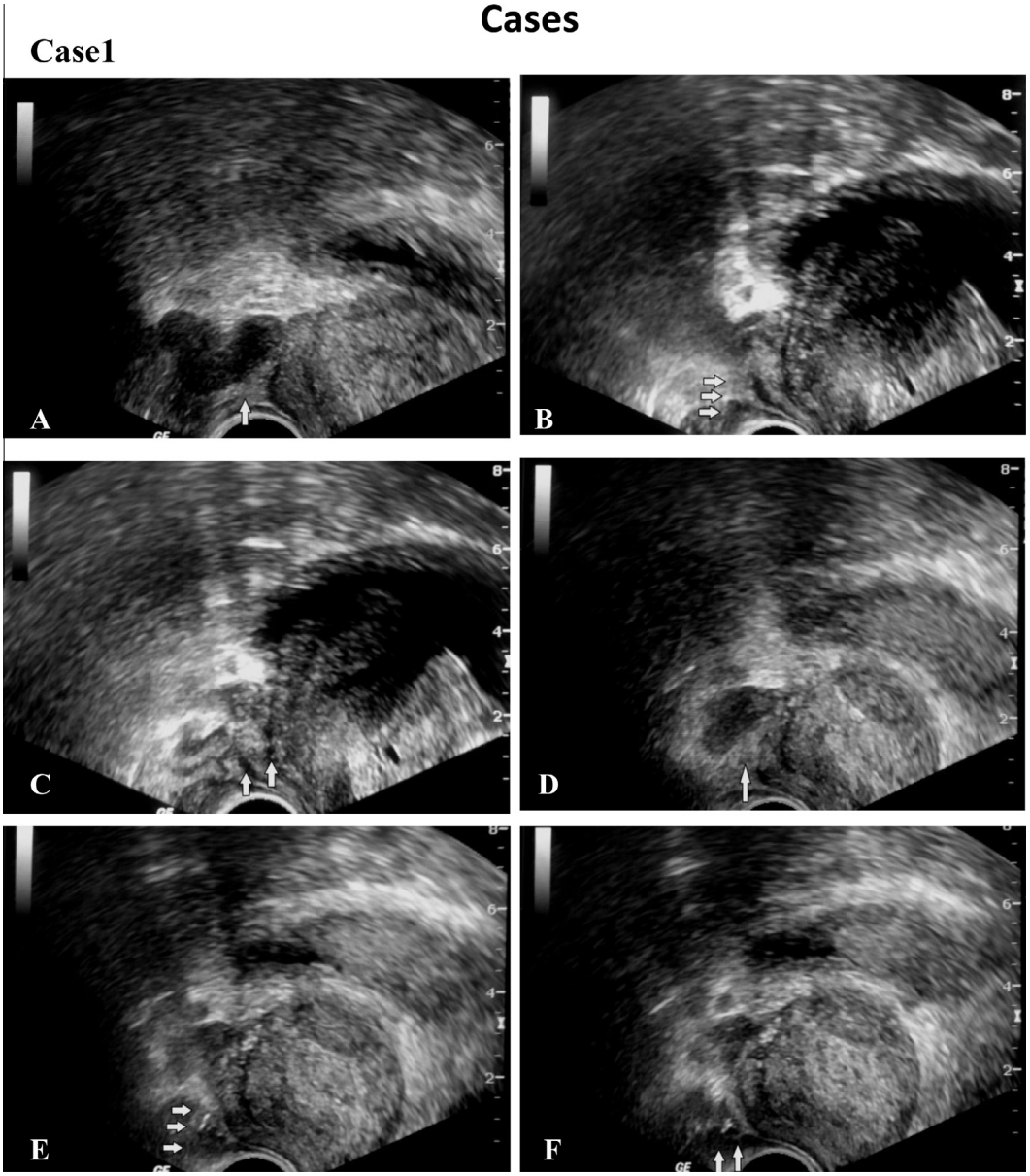

Fig. 1 65-Year old male patient with senile enlargement of the prostate referred to us for TRUS guided biopsy due to elevated PSA (5 ng/ml). Starting with the right side, sagittal ultrasound view (A) shows white pyramidal site between the prostate and the seminal vesicle laterally ''Mount Everest sign'' (arrow). The 22-gauge, 7-inch spinal needle placed through the biopsy guide channel under ultrasound guidance (B) into the area where the prostatic innervations enter (arrows) followed by injection of 10 ml lidocaine. The ultrasonic wheal (arrows) is seen as a hypoechoic filling of the Mount Everest site (C) dissecting along the nerve to bathe the entire ipsilateral prostatic innervation. The same steps are repeated on the left side (D–F).