



For Single Dosing, Levofloxacin is Superior to Ciprofloxacin when Combined with an Aminoglycoside in Preventing Severe Infections after Prostate Biopsy

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Letter to the Editor

We have read the article by Unnikrishnan et al. [1] reporting the comparison of levofloxacin and ciprofloxacin for preventing severe infections after prostate biopsy. Authors had changed the ciprofloxacin 500 mg single dose plus aminoglycoside intramuscular single dose prophylaxis to levofloxacin 750 mg single dose plus aminoglycoside intramuscular single dose because of increasing infectious complications after TRUSBP in the present study. They detected a significant reduction in severe infections after the switch to levofloxacin (2.43% vs. 0.92; P=0.04) and mentioned that levofloxacin 750 mg single dose plus aminoglycoside intramuscular single dose was suitable option for empiric prophylaxis in their clinic. Since fluoroquinolones have a broad spectrum of activity against most gram-negative organisms and a good prostatic tissue penetration, they are widely used for antibiotic prophylaxis in TRUSBP. However, prolonged use of fluoroquinolones has resulted in increasing microbial resistance and severe infectious complications. Although some prevention methods are recommended for reducing the infectious complications after TRUSBP including the use of fleet enemas or rectal swab with Betadine before the procedure, [2,3] these methods had not been used in present study. Aminoglycoside is a nephrotoxic agent and it was used in all patients but there were no information about the creatinine level of patients in present study.

We had been used ciprofloxacin single dose prophylaxis for TRUSBP since the infectious rates had increased. Fluoroquinolone resistance was detected in 35% of patients admitted to our clinic at the last three years.

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Ongun, et al. [4] compared single dose fosfomycin with single dose levofloxacin and 500 mg oral ciprofloxacin twice daily administered for 5 days starting 1 day before the procedure in a retrospective study and Lista, et al. [5] compared double doses of fosfomycin use with 500 mg oral ciprofloxacin twice daily administered for 5 days starting 1 day before in a prospective randomized study. Fosfomycin was found to be as safe and effective as ciprofloxacin and levofloxacin in these two studies. The rate of resistance against fosfomycin is still low despite its clinical use for decades and there is also no cross-resistance or parallel resistance against fosfomycin and other frequently used antibiotics. According to these studies we switched the prophylactic regimen to a single dose fosfomycin 3g and we wanted to evaluate its effect by a prospective randomized study. Totally 300 patients were included in the study and divided into two groups. A single dose of fosfomycin (orally, 3 g) the night before the procedure was used as PAP in Group-1 500 mg oral ciprofloxacin 60 min before the procedure was used as PAP in Group 2. Febrile UTI was not observed in any patient and afebrile UTI was detected only in 4 patients in the fosfomycin group. None of the patients presented with infectious complications and required hospitalization in fosfomycin group. Afebrile UTI rate was higher in ciprofloxacin group. Our results revealed that single dose fosfomycin is as effective and safe as single dose 500 mg oral ciprofloxacin in the antibiotic prophylaxis for prostate biopsy. The main advantages of fosfomycin include its simple oral use as single dose and lower cost compared to intravenous antibiotic prophylaxis regimens.

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