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Infective complications after prostate biopsy: outcome of the Global Prevalence Study of Infections in Urology (GPIU) 2010 and 2011, a prospective multinational multicentre prostate biopsy study.

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Abstract

BACKGROUND: Infection is a serious adverse effect of prostate biopsy (P-Bx), and recent reports suggest an increasing incidence.

OBJECTIVE: The aim of this multinational multicentre study was to evaluate prospectively the incidence of infective complications after P-Bx and identify risk factors.

DESIGN, SETTING, AND PARTICIPANTS: The study was performed as an adjunct to the Global Prevalence Study of Infections in Urology (GPIU) during 2010 and 2011. Men undergoing P-Bx in participating centres during the 2-wk period commencing on the GPIU study census day were eligible.

OUTCOME MEASUREMENTS AND STATISTICAL ANALYSIS: Baseline data were collected and men were questioned regarding infective complications at 2 wk following their biopsy. The Fisher exact test, Student t test, Mann-Whitney U test, and multivariate regression analysis were used for data analysis.

RESULTS AND LIMITATIONS: A total of 702 men from 84 GPIU participating centres worldwide were included. Antibiotic prophylaxis was administered prior to biopsy in 98.2% of men predominantly using a fluoroquinolone (92.5%). Outcome data were available for 521 men (74%). Symptomatic urinary tract infection (UTI) was seen in 27 men (5.2%), which was febrile in 18 (3.5%) and required hospitalisation in 16 (3.1%). Multivariate analysis did not identify any patient

subgroups at a significantly higher risk of infection after P-Bx. Causative organisms were isolated in 10 cases (37%) with 6 resistant to fluoroquinolones. The small sample size per participating site and in compared with other studies may have limited the conclusions from our study.

CONCLUSIONS: Infective complications after transrectal P-Bx are important because of the associated patient morbidity. Despite antibiotic prophylaxis, 5% of men will experience an infective complication, but none of the possible factors we examined appeared to increase this risk. Our study confirms a high incidence of fluoroquinolone resistance in causative bacteria.

Comment in

Prostate biopsies should be performed according to a standard of care. [Eur Urol. 2013]

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