body mass index, pre-treatment PSA, history of transrectal biopsy, operative time, blood loss, pelvic lymph node dissection, homologous blood transfusion.

Conclusions: Our results support the recommendation of EAU guidelines, a single perioperative dose administration of antibiotic prophylaxis for radical prostatectomy.

587 PROSTATE BIOPSY ANTISEPSIS CLINICAL TRIAL: A REPORT ON THE FIRST 500 PATIENTS
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Introduction & Objectives: Approximately one million transrectal ultrasound-guided prostate biopsies, (TRUSBx) are performed in North America each year. The most significant risks associated with this procedure are infectious complications. Bladder and prostate infections occur in 3-11% of men, and sepsis is observed in 0.1-5%, even with antibiotic prophylaxis. This study examined the effect of rectal decontamination with Povidone-iodine on the rate of post-TRUSBx infectious complications.

Materials & Methods: This is an interim analysis on the first 500 men of the projected 1044 to be enrolled in this trial. Patients were prospectively randomized to undergo TRUSBx with or without the addition of a rectal cleaning with Povidone-iodine. All patients had a rectal swab and urine culture prior to TRUSBx and a subsequent urine culture 48 hours post TRUSBx. All patients monitored their temperature for 48 hours, and a post-biopsy questionnaire was administered after 7 days. The primary endpoint was the rate of infectious complications, a composite endpoint consisting of: 1. Fever >38.5°C, 2. Urinary tract infection, or 3. Sepsis (standardized definition). Chi-square (X²) significance testing was performed.

Results: No significant adverse reactions to Povidone-iodine were recorded. Infectious complications were noted in 19/500 (3.8%) patients, including 11/242 (4.5%) controls and 8/258 (3.1%) treated patients (p=0.05). Rectal swab cultures yielded ciprofloxacin-resistant bacteria in 21% (104/500) of cases, and 88.5% (92/104) of these isolates were E.coli. All three patients with sepsis had ciprofloxacin-resistant E.coli in the rectal swab and post biopsy urine.

Conclusions: Rectal decontamination prior to TRUSBx with Povidone-iodine is simple and safe, but this study does not yet offer any evidence for its prophylactic efficacy. Although ciprofloxacin-resistant bacteria are commonly found in the rectum of patients undergoing TRUSBx, infectious complications occur at a low rate.

588 BACTERIAL SEPSIS FOLLOWING PROSTATIC BIOPSY
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Introduction & Objectives: Despite recent innovations, complications of prostatic biopsy can occur. The most serious septic complications include urosepsis, which occurs in 0.3 to 1.3% of the cases. The aim of this study was a prospective monitoring of major septic complications occurring after transrectal prostate biopsy, the study of bacterial virulence factors and the exclusion of a common source of contamination.

Materials & Methods: This prospective study was carried out between January 2009 and September 2010. The indications for carrying out the prostate biopsy conformed with those of the European Association of Urology 2007 guidelines. Complications were evaluated by direct observation in the first few hours after the biopsy and by telephone interviews 3, 7 and 30 days after the procedure. Preparation for the biopsy involved an enema and antibiotic prophylaxis with fluoroquinolone. Study of virulence factors was performed on three of the strains of Escherichia coli isolated from different patients that were subjected to multiplex PCR analysis. The pathogenic strains are EHEC (Enterohaemorrhagic Escherichia coli), STEC (Shiga-Toxin producing), EIEC (Enteroinvasive), EPEC (Enteropathogenic) and ETEC (Enterotoxigenic).

Results: Between January 2009 and September 2010, 463 patients were enrolled in the study and 447 (96%) completed the telephone interview. Urosepsis occurred in ten patients (2.2%), and in two cases evolved into septic shock. The mean interval between performance of the biopsy and the patients’ admission to hospital was 40 hours. The mean age of the patients was 64.9 years. Of these ten patients, nine had a positive blood culture, of whom eight for Escherichia coli and one for Aeromonas hydrophila, Aeromonas caviae, and Aeromonas sobria. The patients with Escherichia coli infection all developed urosepsis within the first 48 hours after the procedure. In seven cases, the Escherichia coli isolated were resistant to fluoroquinolone and in one case, the Escherichia coli isolated produced an Extended Spectrum Beta-Lactamase (ESBL). Six Escherichia coli were classified as MultiDrug-Resistant Organisms (MDRO). The strains subjected to PCR were different and all gave negative results for virulence factors, Of the ten patients, one died after the onset of multi-organ failure. For the other nine, the mean time spent in hospital was 9 days (range, 6 – 15 days). Complete recovery was observed in all these cases, with no sequelae.

Conclusions: Enterobacteriaceae and, in particular, Escherichia coli are developing new drug resistances. The ESBL-producing strains are particularly feared as they are resistant to all penicillins, to cephalosporins, including third and fourth generation agents, and to aztreonam and are often cross-resistant to trimethoprim/ sulfamethoxazole and quinolones. At the time of discharge home, the patient must be appropriately informed to consult a doctor in the case of fever, in order that signs of sepsis are identified early.

589 COMPARISON OF PROSTATIC ABSCESS TREATMENT: IS TRANURETHRAL RESECTION OF PROSTATIC ABSCESS MORE EFFECTIVE THAN NEEDLE ASPIRATION?
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Introduction & Objectives: Diagnosis and proper treatment of prostatic abscesses remains a challenge for physicians. Therefore, we compared the data of conservative treatments, transurethreal resection of prostatic abscesses, and transrectal ultrasound (TRUS)-guided needle aspiration in 52 cases over a 10 year period.

Materials & Methods: Between 2000 and 2010, the records of 52 patients at our hospital diagnosed with prostatic abscess by computed tomography were retrospectively reviewed. Multivariate regression analysis was done to determine independent risk factors for the length of hospitalization in patients with prostatic abscesses.

Results: At the time of diagnosis, the average age of the 52 patients was 56.9 (33-81), the average volume of the prostate was 47 cc (21-108), the average PSA was 16.3ng/ml (2.5-56.6), and the average abscess size was 3.8cm (2.1-6.5). All patients were treated with parenteral antibiotics during hospital stay, with intravenous antibiotics (fluoroquinolone monotherapy or 3rd generation cephalosporin in combination with an aminoglycoside). Of 52 patients, 19 patients had hypertension (36.5%), 22 had diabetes mellitus (42.3%), and 7 (13.5%) had paraplegia due to spinal cord injury. The most common symptoms were fever (47, 90.4%), perineal discomfort (43, 82.7%), dysuria (40, 76.9%), and urinary retention (29, 55.8%). Prostatic abscesses were treated by conservative treatment (11 cases), transurethreal resection of prostatic abscess (23 cases), and TRUS-guided needle aspiration (18 cases). The average hospitalization stay was 17.5 days (4-39), that of conservative treatment patients was 18.1 days. Transurethreal resection of prostatic abscess patients and TRUS-guided needle aspiration patients stayed 11.2 (7-21) and 20.2 days (6-32), respectively. Of the 18 cases underwent needle aspiration, prostatic abscesses were recurred in 4 cases (22.2%) within 1 month after discharge from hospital. The2 patients subjected to conservative treatment died due to sepsis. Age, medical history of diabetes mellitus, and treatment methods of prostatic abscess are the independent factors which affect the average hospitalization period.

Variables | Standardized regression coefficient (R) * | P value *
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Age | 0.492 | 0.035
DM (yes) | 2.124 | 0.042
Hypertension (yes) | 1.016 | 0.322
Urinary analysis | 0.215 | 0.079
Leukocytosis | 0.172 | 0.099
Abscess size | 0.113 | 0.189
Prostate volume | 0.095 | 0.245
Bacterial culture E.coli(n=23) (ref) | | |
Entreococcus faecalis (n=12) | 0.894 | 0.311
Klebsiella pneumonia (n=6) | 1.118 | 0.105
Pseudomonas aeruginosa (n=5) | 1.094 | 0.097
Etc. (n=6) | 0.928 | 0.466
Treatment methods | | |
TURP (ref) Conservative treatment | 2.293 | 0.033
Needle aspiration | 2.428 | 0.026
Antibiotics regimen | | |
Fluoroquinolone (ref) 3rd generation cephalosporin +aminoglycoside | 1.132 | 0.156