

Prostatitis by *Chromobacterium violaceum* – A Case report

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INTRODUCTION

Chromobacterium violaceum is found in soil and water but human infections like skin lesions with pyemia and multiple abscesses are recorded in the tropics. Here we report a case of prostatitis due to *Chromobacterium violaceum*.

CASE REPORT

A 35 year old male presented to urology out patient department with high fever and chills with perineal pain, increased frequency and burning micturition since two days.

Ultrasonography of abdomen and pelvis showed urinary bladder wall thickening suggesting cystitis and prostatomegaly suggesting prostatitis. His blood and urine sample were collected and sent to laboratory for further investigations.

Haematological investigations showed Total WBC count 26,500 cells/Cumm Differential count (Neutrophils: 87%, Lymphocytes: 12%, Eosinophils 0 %, Monocytes 1% and Basophils 0 %) ESR (Wintrobe method): 04 mm/hour and peripheral smear was negative for malarial parasite. Urine analysis was negative for proteins and sugar. Pus cells count was 7–8 /high power field and 1–2 epithelial cells/high power field. There were no casts

and crystals. Mid stream urine was inoculated onto blood agar and MacConkey agar and incubated overnight at 37°C aerobically (photo 1) following semiquantitative method. Pure growth of violet coloured colonies grew with a colony count of 10⁵ CFU/ml. On further testing it was gram negative bacilli and motile.

Violet pigment was also produced on nutrient agar. Organism was catalase and oxidase positive, nonlactose fermenters, glucose was fermented with acid. It was confirmed as *Chromobacterium violaceum* by conducting biochemical tests^[1]. Strain was susceptible to ciprofloxacin, gentamicin, netilmycin, amikacin and cefotaxime. Antibiotic susceptibility testing was performed according to standardized disc diffusion Kirby–Bauer method^[2]. Patient was treated with ciprofloxacin. Patients symptoms disappeared after treatment. Repeat mid stream urine sample after 4 weeks did not yield any growth on the culture media.

DISCUSSION

Bacterial prostatitis can manifest as an acute disease, although the manner by which bacteria reach the prostate is unknown^[3,4]. Gram negative enteric organisms, most commonly *E. coli* is the most frequent pathogen^[3,4]. *Chromobacterium violaceum* infection is rare and have been recorded mainly in the tropics and consist of skin lesions with pyemia and multiple abscess^[5]. This organism is usually found in the soil and water of tropical and subtropical areas like India, Malaysia, and Trinidad. It is a bacterium of low virulence causing occasional localized infection. In immunocompromised individual it can cause septicaemic infections with abscesses in multiple internal organs, urinary tract infection and diarrhea^[6]. The present study reports a case of prostatitis by *C. violaceum*, which probably originated from soil contamination and reached the prostate through the urethra. The patient was

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Photo 1: Growth on Blood Agar and MacConkey's Agar Plates

otherwise healthy and had no diabetes mellitus or history of other compromising illness. His leucocyte count was elevated suggesting infection (87%). The patient responded to ciprofloxacin. We found this organism as the causative organism of prostatitis

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