

TITLE: CASE REPORT: ISOLATION OF HAEMOPHILUS INFLUENZAE IN URINE CULTURE

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ABSTRACT:

Human respiratory tract has as part of its normal microbiota the *Haemophilus influenzae*. Usually associated with pneumonias, meningitis, sinusitis, generalised bloodstream infection, pericardium and joints inflammation; It is rarely described as a pathogen of urinary tract infection (UTI). Real incidence of this microorganism is underestimated, because this species do not grow in standard urine culture media, additionally it is a fastidious bacterium, that needs specific isolation conditions, that are not routinely used in clinical laboratories. This study aimed to report *Haemophilus influenzae* isolation from an urine sample at Hermes Pardini Laboratory. The sample of the male patient, 25 years old, was cultured on chromogenic medium (CPS from bioMérieux) and incubated at 37°C. After 24 hours, there was no bacterial growth. The automated urinary screening test (UF-1000i) has shown bacteriuria, pyuria, hematuria and positive nitrite. A gram staining of the urinary sediment was performed, in which pleomorphic gram-negative rods with morphological characteristics of the genus *Haemophilus* were visualised. The sample was cultured on VX supplemented chocolate agar and incubated in microaerophilia, after 24 hours, presenting bacterial growth above 10⁵ CFU/mL. The bacterium was submitted to antibiotic sensitivity testing by disc-diffusion (Oxoid) and identified by Vitek (bioMérieux) automated method. Clinical data from the patient were obtained for discussion among professionals involved in the case. The patient reported pain when urinating, and no other symptom, he does reports having chronic renal failure. He reported periodic examinations for disease monitoring. The bacteria *H. influenzae* may be associated with urinary tract infections, besides rare reports of its isolation in urine cultures. It is essential that the gram staining of urinary sediment is carried out in negative urine cultures which mainly shows pyuria and bacteriuria. In addition to patient symptomatology, abnormalities or surgical interventions of urinary tract, should be evaluated with criteria for precise diagnostic. Collaboration between clinicians and microbiology laboratory staffs is essential in spite of correct identification of microorganisms and for appropriate therapy of genitourinary tract infections, particularly in elderly, immunodepressed patients, patients with anatomical or functional abnormalities and pregnant women.

Keywords: *Haemophilus influenzae*; urine culture; urinary tract infection (UTI);
urine sediment

Development Agency: Istituto Hermes Pardini