

***Chromobacterium violaceum*, a rare life-threatening soil pathogen**

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ABSTRACT

Introduction: *Chromobacterium violaceum* (CV) is a rare, life-threatening bacterial infection mimicking melioidosis in tropical regions. This purplish pathobiont is a facultative anaerobic gram-negative bacillus, commonly found in stagnant water or contaminated soil. It is associated with a high fatality rate despite treatment in tropical and subtropical regions causing minor skin infections to a severe sepsis with multiorgan failure. We report a case of *C. violaceum* in a healthy 11-year-old boy. He was referred to our tertiary care for unresolving proximal right thigh swelling with pus discharge despite administration of broad-spectrum antibiotics. **Case report:** A young boy with no underlying medical illness was referred from a district hospital to our tertiary care for unresolving, painful, right proximal thigh swelling, which persisted for two weeks. Prior to the onset of symptoms, he had a history of swimming in the river however there were no history of injury on the symptomatic leg. On the day of admission to the district hospital, he was septic looking with a temperature of 39°C, pulse rate of 115 beats/min and blood pressure of 98/65 mmHg. Laboratory investigation showed leucocytosis with total white blood cell count of $19 \times 10^9/L$. Despite empirical treatment with IV cloxacillin and IV cefepime, his condition deteriorated and required oxygen supplementary and inotrope support. Urgent abdominal ultrasound and chest x-rays revealed multiple liver abscesses and minimal pleural effusion. A gram-negative bacilli colony grew on both blood and pus culture, morphologically round, convex with dark violet pigmentation on blood agar. It was identified as *C. violaceum* through matrix-assisted laser desorption ionization-time of flight mass spectrometry (MALDI-TOF MS). Intravenous ciprofloxacin and amikacin were administered, and by the fifth day of treatment, his clinical condition improved evidence by reducing septic parameters. The treatment was completed in six weeks. **Discussion:** *C. violaceum* is an unusual infection especially in a young age group. A history of exposure to contaminated soil and water with abscess formation despite broad-spectrum antibiotics should prompt the clinician to work on the diagnosis of melioidosis and other possible organisms mimicking melioidosis. Culture and sensitivity from the affected site would be the best to isolate this organism and to initiate the definitive treatment. **Conclusion:** *C. violaceum* bacteremia is highly fatal, hence prompt diagnosis is necessary for the optimal antimicrobial treatment. Combination antimicrobial therapy is a good option in reducing mortality. In this case, the combination of intravenous ciprofloxacin and amikacin improved the patient's condition.