

Isolation and Characterization of *Burkholderia Cepacia* Strains from Hospitalized Patients in the Hospitals of West Guilan Province

Elmi Merian, M. (MSc)

MSc of Microbiology, Islamic
Azad University, Lahijan
Branch, Iran

Faezi Ghasemi, M. (PhD)

Assistant Professor of
Microbiology, Faculty of Basic
Sciences, Islamic Azad
University, Lahijan Branch, Iran

Corresponding Author:

Faezi Ghasemi, M.

Email: faezi_m@yahoo.com

Received: 25 Sep 2013

Revised: 31 Dec 2013

Accepted: 5 Jan 2014

Abstract

Background and Objective: *Burkholderia cepacia* complex (BCC) is a plant pathogen that is an important mortality factor in immune-compromised and hospitalized patients. We aimed to Isolate and Characterize the Burkholderia Cepacia Strains from Hospitalized Patients in the Hospitals of West Guilan Province.

Material and Methods: This study was conducted on 90 saliva and blood samples obtained from patients with blood infection, pneumonia, asthma, patients connected to the monitoring and ventilator systems, and immune-compromised patients in different sections of hospitals such as the pediatrics, internal section, ICU and CCU. Primary screening was performed by cultivating the samples on Burkholderia cepacia selective agar (BCSA); Sensitivity to antibiotics was tested by Kirby-Bauer and Muller-Hinton Agar (MHA); and the separated isolations were recognized by strengthening the gene rec A.

Results: Of 90 isolated samples, only one strain suspected *B. cepacia* was isolated from 24-year old women with asthma. This strain was resistant to bacitracin, piperacillin and ciprofloxacin antibiotics.

Conclusion: The incidence of *B. cepacia* is rare in western part of Guilan province, which is congruent with the results of overall incidence in Iran.

Keywords: *BurkholderiaCepacia*, Isolation, Characterization, Nosocomial Infection