Evaluation of Urinary Interleukin-8 Levels in Patients with Spinal Cord Injury

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Published: 18 February, 2015

Abstract

Interleukin-8 (IL8) is the protein released by different cells. Increased of IL8 indicated the infection in any part of body so increased of IL8 in urine is indicated the urinary tract infection. Patients with spinal cord injuries have to use catheter for long time and or for all of life, and they are high risk to recurrent urinary tract infections and other infections. To determine of increasing urinary IL8 in patients with spinal cord injuries the present study is the survey of this. Clean catch midstream urine samples were collected from spinal cord injury patients who admitted to “Brain and Spinal Injury Repair Research Centre” in Imam Hospital in duration almost one year. Urine samples were collected from 97 spinal cord injury patients included 85 male and 12 female and then were analyzed by biochemical and microscopically surveys and then, IL8 were measured in samples by ELISA method. In total 97 patients, 87 patients were IL8 positive (>10 pg/ml) and in 87 positive samples, 59 patients had bacteriuria and 54 patients had pyuria. Statistical analysis showed that the significant relationship between bacteriuria and pyuria with urinary IL8 positive patients \( (P<0.05) \). The patients with spinal cord injury need to monitor for urinary tract infection although without any symptoms of infections and sometimes. The measurement of IL8 is a fast and easy method for monitoring of urinary tract infection in these patients.

Keywords: Urinary IL8, Spinal Cord Injury, Urinary Tract Infection.

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