Environmental Engineering and Management Journal

February 2020, Vol. 19, No. 3, 511-516 http://www.eemj.icpm.tuiasi.ro/; http://www.eemj.eu



"Gheorghe Asachi" Technical University of Iasi, Romania



ENVIRONMENTAL AND CLINICAL CONTEXT IN MENINGOCOCCEMIA: BIOCHEMICAL MODIFICATION OF STIEHM-DAMROSCH/NIKLASSON SEVERITY SCORE – PROGNOSTIC FACTOR

Carmen Manciuc^{1,2}, Georgiana Alexandra Lacatusu^{2*}, Ioana Florina Mihai^{1,2}, Cristina Vasilescu², Alexandra Largu¹, Florin Petrariu¹

¹"Grigore T. Popa" University of Medicine and Pharmacy Iasi, Romania, Faculty of Medicine, 16 Universității Street, 700115, Iași, România ²" Sf. Parascheva" Clinical Hospital of Infectious Diseases Iasi, 2 Octav Botez Street, 700116, Iasi, Romania

Abstract

The study considers meningococcemia which is one of the most severe form of meningococcal disease and represents a significant worldwide health problem. The occurrence of meningococcemia was investigated based on a case study developed in a Romanian hospital using data taken from the medical records of patients with the diagnosis of meningococcemia. The pathogen can produce a fulminant form of the disease that can lead to death within a few hours of onset. The signs and symptoms of meningococcemia can include an early upper respiratory tract infection with coryza, pharyngitis, tonsillitis, and/or laryngitis which can rapidly be followed by a collapse of the immune system and can ultimately cause multisystem organ failure. We considered the Stiehm-Damrosch/Niklasson severity score a useful instrument which includes biochemical and clinical factors. Regarding the biochemical factors of the score, the absence of leukocytes in cerebrospinal fluid together with the low level of glucose can be considered important predictors of a severe prognosis.

Key words: environmental factors, Neisseria meningitidis, pediatric pathology, seasonal occurrence, severity score

Received: November, 2019; Revised final: March, 2020; Accepted: March, 2020; Published in final edited form: March, 2020

^{*} Author to whom all correspondence should be addressed: alexandra.lacatusu@gmail.com