Human Vaccines & Immunotherapeutics

ISSN: 2164-5515 (Print) 2164-554X (Online) Journal homepage: https://www.tandfonline.com/loi/khvi20

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To cite this article: Hasan Tezer, Aslinur Ozkaya-Parlakay, Saliha Kanik-Yuksek, Belgin Gülhan & Dilek Güldemir (2014) A Syrian patient diagnosed with meningococcal meningitis serogroup B, Human Vaccines & Immunotherapeutics, 10:8, 2482-2482, DOI: 10.4161/hv.28951

To link to this article: https://doi.org/10.4161/hv.28951

Published online: 01 May 2014.

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Human Vaccines & Immunotherapeutics 10:8, 2482–2482; August 2014; © 2014 Landes Bioscience

A Syrian patient diagnosed with meningococcal meningitis serogroup B

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Keywords: *Neisseria meningitidis* type b, child, meningitis, meningococcus, refugee

Meningococcal infection is an important health problem in children, with significant mortality and morbidity. In this infection, early recognition and aggressive treatment can reduce mortality. Herein we report an 11-year-old-Syrian refugee girl living in Turkey for 3 months admitting with fever, headache, and vomiting diagnosed as meningococcal meningitis type B who was cured with intravenous ceftriaxone therapy. Infections in refugee populations constitute major importance for highlighting importance of investigation of endemic diseases in their own country and contagious diseases in their present place.

To the Editors,

We read the article by M Bakir regarding meningococcal serogroup B disease in Turkey with great interest.[1] In the article, the author stated that in one of the recent studies from Turkey, the sharp decrease of in the incidence of serogroup B invasive meningococcal disease (IMD) from 35% to 2.5% over only a few years despite the absence of vaccination is confusing, but in the article it was emphasized that the frequency of each meningococcal serogroup varies considerably over time and by geographical location.[2] To support this opinion, we report an 11-y-old Syrian refugee girl living in Turkey for 3 mo admitting with fever, headache, and vomiting and diagnosed as serogroup B IMD. This girl was admitted with a two-day history of headache, fever, and vomiting at another health center, and was referred to our hospital with a diagnosis of meningitis in that she had lethargy and neck stiffness in her physical examination. At admittance, petechia was more prominent in the lower extremities, having been unnoticed in the previous health center. Together with neck stiffness, Kernig and Brudzinski signs were present. Thus, with a probable diagnosis of meningococcal meningitis, lumbar punction was done and first dose of ceftriaxone was applied. A clinical laboratory study revealed leukocytosis (32 000/μL [N: 3.4–10.8×10^3/μL]), elevated C reactive protein (26 mg/dL [N: 0–0.5]), elevated erythrocyte sedimentation rate (N: 30mm/hr [0–20]), and elevated activated partial thromboplastin time (45.9 s [N: 25–38]). In the examination of central system fluid (CSF), amorphous polymorphonuclear leucocytes in Giemsa stain and gram-negative cocci in Gram stain were present. The laboratory study of CSF showed that the level of CSF glucose was 40 mg/dL (N: 40–70), CSF protein as 341 mg/dL (N: 15–45), and blood glucose was 108 mg/dL. Polymerase chain reaction study of CSF yielded *Neisseria meningitidis* serogroup B. Cultures of blood, petechial swab, and CSF were negative. Patient was cured after 10 d of ceftriaxone therapy. In this case, due to 3 mo of accommodation in Turkey, it could not be estimated whether the patient acquired this strain in her country or in Turkey. As stated by Bakir, commonly used meningococcal vaccines in Europe cover serogroups A, C, Y, and W-135, and a quadrivalent protein-based serogroup B vaccine developed by Novartis Vaccines and Diagnostics has been licensed in the EU for infant vaccination, but not yet in Turkey. Our case is important as a basis for emphasizing the need to be careful about probable new cases of meningococcus type B due to increasing number of refugees in Turkey. Nationwide active surveillance studies for the locally prevalent serogroups of *N. meningitidis* could assist in decision-making for an appropriate vaccination program.

Disclosure of Potential Conflicts of Interest

No potential conflicts of interest were disclosed.

References

1. Bakir M. Meningococcal serogroup B disease in Turkey: A guess or reality? [Epub ahead of print]. Hum Vaccin Immunother 2014; 10;In press; PMID:24637878; http://dx.doi.org/10.4161/hv.28438

2. Ceyhan M, Celik M, Demir ET, Gurbuz V, Aycan AE, Unal S. Acquisition of meningococcal serogroup W-135 carriage in Turkish Hajj pilgrims who had received the quadrivalent meningococcal polysaccharide vaccine. Clin Vaccine Immunol 2013; 20:66-8; http://dx.doi.org/10.1128/CVI.00314-12; PMID:23136117

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Submitted: 04/08/2014; Accepted: 04/18/2014; Published Online: 05/01/2014
http://dx.doi.org/10.4161/hv.28951

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