



An Adolescent Boy Presenting with Complicated Meningococcal Meningitis Serogroup A: What Is the State of Community Awareness for This Serious Disease?

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Dear Editor-in-Chief

Invasive meningococcal disease (IMD), which may be highly variable spectrum of clinical manifestations, is important for acute and chronic complications in the age groups of children and adolescents (1,2). There is limited information regarding community and awareness of IMD, especially in the adolescents as a target group (3,4). The assessment of community knowledge and awareness of IMD have to be known to understand the general public's view of the disease in order to help developing community educational programs targeted to specific age groups. Otherwise, an unconscious community against this serious disease that can be fatal may be led to irreversible and life-threat complications in surviving patients.

To support this opinion, we report a 17-year-old boy, who is a member of a family of low socioeconomic level and working as a construction worker, diagnosed as meningococcal meningitis without any history of meningococcal vaccine. He had a delayed admission to hospital about 3 days due to lack of awareness that the cause of his symp-

toms may be meningitis. The patient was admitted with fever, headache, nausea lasting for three days and bilateral hearing impairment appearing on the last day. In physical examination, he had neck stiffness together with positive Kernig and Brudzinski signs, bilateral intermittent horizontal nystagmus. A lumbar puncture was performed with a preliminary diagnosis of meningitis to the patient who had leukocytosis (18300/ μ L [N: 3,5-10,5X10³/ μ L]), elevated C reactive protein (21 mg/dL [N: 0-0,5]) and elevated erythrocyte sedimentation rate (N: 120 mm/hr [0-20]) in blood studies. In the examination of cerebrospinal fluid (CSF), amorphous polymorphonuclear leucocytes in Giemsa stain and Gram negative diplococci in Gram stain were present along with high protein level (169 mg/dL [N: 15-45]) and low glucose level (35 mg/dL [N: 40-70]) with accompanying 138 mg/dL blood glucose. The CSF culture of the patient yielded *Neisseria meningitidis* without concomitant blood culture positivity, and serogroup typing investigation resulted as serogroup A. The patient was treated with ceftriaxone for 10 days. The signs

of meningitis and nystagmus healed after antibiotic-therapy, but bilateral hearing loss continued as a sequela of the disease. The patient was consulted to the otorhinolaryngology department because of hearing loss after cranial and temporal computed tomography imaging revealed normal results. Systemic prednisolone therapy was attempted, but due to unresponsiveness to the medical treatment, bilateral cochlear implantation operation was decided by otorhinolaryngology department.

In this case, there are some remarkable points such as, lack of awareness of what IMD is by an adolescent and his family and how could they be protected against the disease. According to us our case is an important example for developing countries like our country to emphasize the importance of increasing the level of awareness against IMD, which is characterised by its rapid onset, and is a major cause of death and high rate of long-term sequelae (1,2) as in our patient. And public awareness against IMD should be increased and careful decision making is necessary for community education, especially in targeted groups.

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