Presence of Japanese Encephalitis Virus Specific IgM and IgG Antibodies in Suspected Pediatric Febrile Illness Cases in South Western Saudi Arabia - A Transitory Experience

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ABSTRACT

Presence of Japanese encephalitis (JE) have not been documented in Saudi Arabia. There has been no systemic screening of JE in both vectors (Mosquito) and vulnerable populations. In the current study for the first time in southern Saudi Arabia, JE virus specific IgM and IgG antibodies were evaluated in blood samples from children attending emergency room, Abha Maternity and Children hospital. The results showed 20% seropositivity for JE with 19 (17.7%) IgM and 2(1.8%) IgG. There was no double positivity of IgM or IgG reported. The mean age for JE seropositive were 3 and 2 for male and female respectively. Convulsion was one single statistically significant clinical presentation that was observed in JE seropositive cases compared to the un-known viral etiology group. Paralysis and altered consciousness were only observed in JE seropositive individuals with majority of cases showing JE positivity from 1 to 3 days' date of illness compared to 1 day to 4 weeks among un-known viral etiology individuals. From the results it is evident that there is presence of JE among the community causing febrile illness and can be escalated to be screened in suspected viral meningitis and encephalitis cases. Further investigation including cerebrospinal fluid (CSF) and larger seroprevalence study can throw light on the incidence and prevalence of the JE in this part of the Kingdom.

Keywords: JE, Japanese encephalitis, Seropositivity, JE IgM, JE IgG, Prevalence

Bahrain Med Bull 2023; 45 (2): 1448 - 1451

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