Facultad de Ciencias de la Salud

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Relación de niveles de NS-1 con infección primaria/secundaria del virus del dengue en la costa colombiana.

Presenta:

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Resumen

Introducción: La infección por dengue es una enfermedad transmitida por la picadura del mosquito hembra Aedes, principalmente de la especie Aedes aegypti, cuyos síntomas inician de 4 a 7 días posterior a la picadura del mosquito caracterizados por fiebre , dolor de cabeza y erupción cutánea, asociada además a complicaciones graves como hemorragias y shock las cuales son desencadenadas por compromiso en la permeabilidad vascular y mecanismos que reducen volumen plaquetario , considerada una de las principales causas de morbilidad y mortalidad a nivel mundial.

Objetivo: Relacionar los niveles de NS-1 con infección primaria/secundaria del virus del dengue en el atlántico colombiano.

Metodología: se realizó un estudio analítico, longitudinal, retrospectivo de carácter cuantitativo, con la participación de 36 pacientes incluyendo hombres, mujeres y niños con sintomatología y diagnostico serológico confirmado por laboratorio para el virus del dengue, ubicados en el departamento del atlántico y magdalena entre el año 2018- 2020. Todos los datos de los pacientes se almacenaban en la base de datos REDCap de la Universidad George Washington.

Resultados: Al evaluar los paciente de este estudio se encontró que el 77.78% presento niveles de plaquetas por encima del 100.000 y solo el 22.22% presentaron trombocitopenia severa(plaquetas menor a 100.000) .Los que cursaron con infección secundaria tenían mayor nivel de NS1 circulante en cualquier etapa de la enfermedad (Valor de P = 0.046) en comparación con la infección primaria , sin embargo , durante la fase febril los valores de NS1 se encontraron significativamente más altos y en la fase de recuperación más bajos (Valor de P =0.0006), lo que indica un descenso durante la progresión de la enfermedad.

Conclusión: En este estudio se observó una relación entre los niveles de NS1 con el tipo de infección, principalmente en aquellos con infección secundaria sin embargo sin embargo no se establecieron implicaciones clínicas, teniendo en cuenta el tamaño de muestra recopilada.

Palabras Clave: Dengue, NS-1, trombocitopenia, fuga plasmática, shock, serotipos, infección primaria, infección secundaria.

Abstract

Introduction: Dengue infection is a disease transmitted by the bite of the female Aedes mosquito, mainly of the Aedes aegypti species, whose symptoms begin 4 to 7 days after the mosquito bite, characterized by fever, headache and skin rash, also associated with to serious complications such as hemorrhage and shock which are triggered by compromised vascular permeability and mechanisms that reduce platelet volume, considered one of the main causes of morbidity and mortality worldwide.

Objective: To relate the levels of NS-1 with primary/secondary dengue virus infection in the Colombian Atlantic.

Methodology: An analytical, longitudinal, retrospective quantitative study was carried out, with the participation of 36 patients including men, women and children over 8 with symptoms and laboratory-confirmed serological diagnosis for dengue virus located in the department of the Atlantic and the cupcake between the years 2018-2020. All patient data was stored in the George Washington University REDCap database.

Results: When evaluating the patients in this study, it was found that 77.78% had platelet levels above 100,000 and only 22.22% had severe thrombocytopenia (platelets less than 100,000). Those who had secondary infection had a higher level of circulating NS1 in any stage of the disease (P value = 0.046) compared to the primary infection, however, during the febrile phase the NS1 values were found to be significantly higher and in the recovery phase lower (P value =0.0006), indicating a decline during disease progression.

Conclusion: In this study, a relationship was observed between the levels of NS1 with the type of infection, mainly in those with secondary infection; however, no clinical implications were established, taking into account the size of the sample collected.

Keywords: Dengue, NS-1, thrombocytopenia, plasma leak, shock, serotypes, primary infection, secondary infection.

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