

DENGUE INFECTION IN HEMATOLOGIC-ONCOLOGIC PEDIATRIC PATIENTS: AGGRAVATION OF ANEMIA AND BLEEDING RISK

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Abstract. We studied anemia and bleeding risk among hematologic-oncologic pediatric patients with dengue infection. A total of 907 patients suspected of having dengue infection were included in the study. They were categorized into 2 groups: 1) patients with confirmed dengue infection ($n=843$) and 2) patients with other febrile illnesses ($n=64$). Both groups included patients with underlying hematologic-oncologic diseases (55 vs 14) and without underlying disease (788 vs 50). Patients with underlying diseases were divided into 3 subgroups by risk: Subgroup A, anemia risk, including patients with thalassemia and hemoglobinopathies ($n=39$) and G6PD deficiency ($n=6$); Subgroup B, patients with bleeding risk, including hemophilia ($n=7$), von Willebrand disease ($n=1$) and thrombocytopenia ($n=4$); and Subgroup C, patients with anemia and bleeding risk, including oncologic diseases ($n=12$). Acute hemolysis in Subgroup A started during the febrile stage and required packed red cell transfusions. Bleeding risk in Subgroup B started during the early febrile stage with vasculopathy and continued to the late febrile stage with thrombocytopenia. These patients required factor concentrate and platelet concentrate transfusions. Anemia and bleeding risk in Subgroup C was greater among patients undergoing chemotherapy than those who had discontinued treatment. The greater the length of time since discontinuation of treatment, the lower risk. The case-fatality rate among dengue infected patients with underlying disease (2/55=3.64%) was significantly higher than those without underlying disease 0.63% (5/788).

Keywords: dengue infection, anemia, bleeding, hematologic-oncologic patients

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