

## Prevalence of Dengue in Sickle Cell Disease in Pre-school Children

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**Abstract :** Introduction: Millions of people are affected with dengue fever every year, which drives up healthcare expenses in many low-income countries. Organ failure and other serious symptoms may result. Another worldwide public health problem is sickle cell anaemia, which is most prevalent in Africa, the Caribbean, and Europe. Dengue epidemics have reportedly occurred in locations with a high frequency of sickle cell disease, compounding the health problems in these areas. Aims and Objectives: This study examines dengue infection in sickle cell disease-afflicted pre-schoolers. Method: This Retrospective cohort study examined paediatric patients. Young people with sickle cell disease (SCD), dengue infection, and a control group without SCD or dengue were studied. Data on demographics, SCD consequences, medical treatments, and laboratory findings were gathered to analyse the influence of SCD on dengue severity and clinical outcomes, classified as severe or non-severe by the 2009 WHO classification. Using fever or admission symptoms, the research estimated acute illness duration. Result: Table 1 compares haemoglobin genotype-based dengue episode features in SS, SC, and controls. Table 2 shows that severe dengue cases are older, have longer admission delays, and have particular symptoms. Table 3's multivariate analysis indicates SS genotype's high connection with severe dengue, multiorgan failure, and acute pulmonary problems. Table 4 relates severe dengue to greater white blood cell counts, anaemia, liver enzymes, and reduced lactate dehydrogenase. Conclusion: This study is valuable but confined to hospitalised dengue patients with sickle cell illness. Small cohorts limit comparisons. Further study is needed since findings contradict predictions.

**Keywords :** dengue, chills, headache, severe myalgia, vomiting, nausea, prostration

**Conference Title :** ICPCH 2024 : International Conference on Paediatrics and Child Health

**Conference Location :** Mumbai, India

**Conference Dates :** February 12-13, 2024