

Editorial Comment

A “Red Flag” in Patients with Sickle cell anaemia

Haemoglobinopathy is a major cause of morbidity and mortality in sub-Saharan Africa where the gene frequency is about 25%. The most severe form is the inheritance of homozygous recessive genes leading to sickle cell anaemia. The periodic admissions of affected children and adults for haemolytic and occlusive crises resulting in anaemia with jaundice and pain syndromes respectively demand that pointers to disease severity be identified. The associated complications like stroke, infections (due to reduced opsonization of encapsulated bacteria), acute chest syndrome resulting in hypoxaemia etc., add to the high case fatality and poor quality of life for the patients and their family members.

In this issue of the journal, the subject of hypoxemia in sickle cell anaemia was addressed by Orimadegun and co-workers who prospectively studied a cohort of 208 children. Almost one in five of the affected children had hypoxaemia in the steady state, and the presence of splenomegaly was an important predictor. The other predictors were age (below 8 years), duration of symptoms and being well nourished. Unlike individuals with the haemoglobin SC disease who have splenomegaly commonly, the spleen is usually not palpable in those with sickle cell anaemia due to recurrent infarctions as the child ages (referred to as autosplenectomy). The independent association of hypoxaemia with presence of splenomegaly and age would rule out any confounding. Therefore, this observation by Orimadegun and others suggests that finding a palpable spleen in a child with sickle cell anaemia is a red flag for hypoxaemia, and would thus necessitate the administration of oxygen during crises.

Hypoxaemia is diagnosed when the oxygen saturation is below 90% while the individual is breathing room air, and is easily determined by using a simple pulse oximeter which is available in many hospitals, at least in the emergency, high dependency and intensive care units. This underscores the importance of this article in this era of implementation science to save the lives of affected children.

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