

# G6PD deficiency in Hansen's disease: A preventable peril!

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## Abstract

Although under-reported, hemolytic anemia is common with dapsone therapy. However, it is prudent to screen underlying G6PD deficiency to prevent potentially life-threatening episode of intravascular hemolysis in leprosy.

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**Consent:** Written consent has been obtained from the parents to publish this image.

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An 11-year-old boy noted to have a hypopigmented spot over left cheek with diminished sensation (Figure 1A). Thickening of bilateral ulnar nerves were additional findings. Hansen's disease was diagnosed, and he was treated with clofazimine, dapsone, and rifampicin locally. After three days he developed fever, yellow discoloration of eyes, and cola-colored urine (Figure 1B). On examination, severe pallor, icterus, and splenomegaly was noted. Investigation revealed hemoglobin 58 g/L, indirect bilirubin 5.3mg/dL, serum lactate dehydrogenase 5619 U/L (Normal <170U/L), aspartate aminotransferase 210.9 U/L (Normal <40 U/L). Level of G6PD was significantly reduced. He required two units packed red blood cell transfusion along with 1.5 times maintenance fluid and injection lasix. He recovered after seven days of hospitalization.

Although under-reported, hemolytic anemia is common and related to N-hydroxy metabolite of dapsone (1). However, concomitant G6PD deficiency enhances the risk of intravascular hemolysis, which may be severe, and a cause of significant morbidity. Furthermore as the prevalence of G6-PD deficiency in India varies from 2.3% to 27%, there may be a chance that both conditions exists simultaneously (2). Therefore, before prescribing dapsone containing regimen in leprosy, it is prudent to screen underlying G6PD deficiency in boys to avoid a catastrophic episode of intravascular hemolysis.

**Key words:** *Hansen's disease, Dapsone, G6PD deficiency*

**Authors contribution:** **Arnab Ghorui** : patient management data collection, manuscript writing, and editing.

**Pratap Kumar Patra** : Patient management, manuscript writing, and final approval.

**Authors contribution:**

**Figure legends:**

Figure 1 A: Hypopigmented lesion over the left cheek

Figure 1 B: Image of cola colored urine

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