Report of Three Bengali Cases with Hemoglobin E Variant in Najran

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Abstract:

Abstract: INTRODUCTION: Differential diagnosis of hemoglobin (Hb) variants eluting in the A2 window on high-performance liquid chromatography (HPLC) is of particular importance. Of particular importance is Hb E, which is the most common and the most significant variant. The aim of this study was to study a rare variant infrequently seen in our countries during the routine work. MATERIALS AND METHODS: Sixteen Bengali workers at Najran University Hospital, Saudi Arabia, came to the laboratory for routine investigation. CBC, routine blood chemistry, and Hb separation by HPLC were performed. RESULTS: Three cases out of 16 showed an abnormal Hb peaked on the A2 window on HPLC consistent with the diagnosis of Hb E. Two of them had Hb E of 29.1% of each. The third case had Hb E around 86%. In addition, one case was consistent with β thalassemia trait had increased Hb A2 of 5.7%. Five cases were borderline. CONCLUSION: HbE could be adequately differentiated from other Hb variants eluting in the A2 window on HPLC by the percentage of the variant, its retention time, the mild clinical presentation, and the ethnic origin of the patient.

Keywords:

Hemoglobin A2, hemoglobin E, high-performance liquid chromatography, Kolkata, variant DOI: 10.4103/joah.joah_132_20

Published In:

Journal of Applied Hematology. Accepted: 18 Sep 2020, NULL, NULL