Title: PALLOR AS A CLINICAL SIGN OF ANEMIA IN CASES WITH BETA-THALASSEMIA

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OBJECTIVE: Pallor is deemed useful in the evaluation of patients suspected of anemia, although its perceived presence or absence may be misleading for a variety reasons including increased pigmentation with iron, melanin, bilirubin. The purpose of this study was to determine the validity of pallor in the detection of anemia in children with thalassemia.

DESIGN: Patients with beta-thalassemi A major and beta thalassemia intermedia aged 2 to 30 years who admitted to Hematology Unit, Department of Pediatrics, İhsan Doğramacı Children’s Hospital, Ankara, Turkey were assessed for the presence of pallor in three anatomic sites (palm, conjunctiva, buccal mucosa) by trained pediatrician.

RESULTS: Overall 105 observations were done. Their mean age was 14.7 ± 6.5 years. The mean Hb value was 10.0 ± 1.2 g/dl (range: 5.4 – 12.6 g/dl). The sensitivity of palmar, buccal and conjunctival pallor for identifying thalassemic children with anemia were 93.2, 80.7 and 90.9 %, respectively. Cases with Hb value less than 11 g/dl could be easily detected by conjunctival pallor, independent from serum ferritin levels. However, there were significant associations between the presence of palmar or buccal pallor and the presence of anemia in children with serum ferritin levels lower than 2500 µg/L (p<0.05).

CONCLUSION: Palmar pallor alone had the highest sensitivity and lowest specificity to detect anemia in cases with thalassemia. Conjunctival pallor was useful than buccal and palmar pallor in cases with high ferritin levels. Further studies are necessary to detect the validity of pallor in different causes of anemia. Pallor as a clinical sign of anemia in cases with thalassemia.