

## Pediatric Hematology Abstract Categories

### Red Blood Cell Disorders

OP 17

#### ASSESSMENT OF VITAMIN B12 AND HOMOCYSTEINE LEVELS IN PREGNANT WOMEN ADMITTED FOR DELIVERY AND CORD BLOOD SAMPLES OF THEIR NEWBORN BABIES: A MULTICENTER STUDY

Zeynep Yildiz Yildirmak<sup>1</sup>, Dildar Bahar Genç<sup>1</sup>, Alev Kural<sup>2</sup>, Veli Mihmanli<sup>3</sup>, Suleyman Salman<sup>4</sup>, Keziban Doğan<sup>5</sup>, Mehmet Ali Çiftçi<sup>2</sup>, Nazli Doktor Efeoğlu<sup>4</sup>, Aliye Erdoğan<sup>5</sup>, Necirvan Cagdas Caltek<sup>3</sup>, Emre Ozgen<sup>2</sup>, Ebru Kale<sup>6</sup>

<sup>1</sup> Department of Pediatric Hematology /Oncology, Sisli Hamidiye Etfal Training and Research Hospital, University of Health Sciences

<sup>2</sup> Department of Biochemistry, University of Health Sciences, Bakirkoy Dr. Sadi Konuk Training and Research Hospital

<sup>3</sup> Department of Obstetrics and Gynecology, University of Health Sciences, Okmeydanı Training and Research Hospital

<sup>4</sup> Department of Obstetrics and Gynecology, University of Health Sciences, Gaziosmanpasa Training and Research Hospital

<sup>5</sup> Department of Obstetrics and Gynecology, University of Health Sciences, Bakirkoy Dr. Sadi Konuk Training and Research Hospital

<sup>6</sup> Department of Biochemistry, University of Health Sciences, Dr. Lutfi Kırdar Kartal Training and Research Hospital

**Objective:** Vitamin B12, an essential micronutrient, plays a vital role in various physiological processes, particularly during pregnancy and fetal development. The growing popularity of vegetarian diets and socioeconomic barriers to consuming animal-based products contributes to Vitamin B12 deficiency becoming a global issue. Understanding the B12 status in pregnant women and its potential impact on newborns is of utmost significance as it can have far-reaching implications for both maternal and infant health. This research aims to investigate the vitamin B12 and homocysteine levels in pregnant women admitted for delivery and analyze corresponding cord blood samples from their newborn babies. **Methodology:** This prospective study was conducted in three tertiary care hospitals and included pregnant women aged  $\geq 16$  years admitted for delivery and their newborns  $\geq 34$  weeks. The demographic data and the results of complete blood counts performed within the previous 24 hours before birth were recorded. The levels of vitamin B12 and homocysteine were measured in blood samples and cord blood samples taken from pregnant women and their newborns, respectively. The study parameters were compared between the two groups based on the mothers' and babies' homocysteine and B12

levels. **Results:** The study included 615 Turkish and 217 foreign pregnant women. Anemia affected 36% of pregnant, with a higher frequency in mothers with B12 deficiency. The mean B12 level in pregnant women was  $157 \pm 75.3$  pg/ml, with 14.8% having elevated homocysteine levels. The levels of B12 and homocysteine of the newborns were  $234.7 \pm 13.2$  pg/ml and  $9.13 \pm 5.75$  mol/L, respectively. Vitamin B12 deficiency was found in 48.9% of newborns, while homocysteine levels were slightly elevated or elevated in 19.1%; both findings were significantly more common in babies born to B12-deficient mothers. **Conclusion:** In our study, vitamin B12 deficiency was significant in pregnant mothers and their neonates, with a substantial connection to cord blood homocysteine levels. Further study is needed to determine the impact of this deficit on mother and newborn health. Implementing approaches to timely detecting Vitamin B12 deficiency and, if necessary, providing adequate Vitamin B12 supplementation during pregnancy could play a pivotal role in enhancing the health and well-being of both the mother and the child.

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OP 18

#### A GHOSAL HEMATODIAPHYSEAL DYSPLASIA CASE; EXCELLENT RESPONSE TO NON-STEROIDAL ANTI-INFLAMMATORY DRUG TREATMENT

Hasan Fatih Cakmaklı<sup>1</sup>, Hatice Mutlu<sup>2</sup>, Şule Altınar<sup>3</sup>, Fatma Aydın<sup>4</sup>, Talia Ilerci<sup>1</sup>, Elif Ince<sup>1</sup>, Mehmet Ertem<sup>1</sup>

<sup>1</sup> Ankara University, Faculty of Medicine, Department of Pediatric Hematology

<sup>2</sup> Ankara University, Faculty of Medicine, Department of Pediatric Genetics

<sup>3</sup> Ankara University, Faculty of Medicine, Department of Medical Genetics

<sup>4</sup> Ankara University, Faculty of Medicine, Department of Pediatric Rheumatology

**Objective:** Ghosal hematodiaphyseal dysplasia (GHDD) is a very rare autosomal recessive disease caused by prostaglandin metabolism disturbances due to biallelic mutations on chromosome 7q33-34 which lead to decrease in thromboxane synthase function. Previously long-term corticosteroid was the only treatment for GHDD. Currently, non-steroidal anti-inflammatory drugs (NSAIDs) as a targeted therapy are preferred alternatively. Here, a genetically confirmed GHDD case responsive to ibuprofen is presented. **Case report:** A 9-year-old girl presented to our clinic with severe normocytic anemia, swelling, and pain in her lower limbs. In physical and radiologic examination metadiaphyseal dysplasia was diagnosed. The diagnosis of GHDD was confirmed with genetic analysis. The patient was treated with ibuprofen (30 mg/kg/day) with excellent response to both pain and hematologic parameters in 15 days period. **Conclusion:** Ghosal