found to be significantly lower ($p < 0.05$) in anaemic mothers when compared with normal mothers. However, in contrast, cord blood from babies born of anaemic mothers had normal to slightly higher levels when compared to those of babies born to normal mothers. Significant correlations between maternal Hb, PCV, MCV, MCH, MCHC, RDW HDW and cord blood PCV, MCV, MCHC and ferritin were also observed. **Conclusion:** Our study showed that the foetus remains unaffected by maternal iron deficiency anaemia by maintaining adequate iron stores at the expense of maternal iron.

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P-RCD 02

Evaluation of One-Tube Osmotic Fragility as a Screening Test for Beta Thalassaemia Trait in Sri Lanka

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Introduction: Thalassaemia is highly prevalent in Sri Lanka. The highest number of patients are seen in the North-Western province, especially in the Kurunegala district, in comparison to the other provinces in the country. Screening of children and adults to detect beta thalassaemia carriers using automated full blood count reports and HPLC are only limited to few centers in Sri Lanka. So, the diagnostic process is not easy in under resourced laboratories in a developing country like this .In this context, the value of one tube osmotic fragility test as a screening test is immense. Our study tried to find out the sensitivity and specificity of this test in beta thalassaemia carriers/trait (BTT) in Sri Lanka. **Objectives:** To evaluate the efficiency of 0.36% buffered one tube osmotic fragility test as a screening test for beta thalassaemia trait in Sri Lanka. **Material and Methods:** This was a comparative cross sectional study on randomly selected 700 subjects, carried out at National Thalassaemia Centre of Kurunegala Teaching Hospital. Subjects were categorized into four groups based on red cell indices, HPLC and serum ferritin assay as normal group, BTT group, IDA group and other haemoglobinopathies. (Hb E trait, E thalassaemia, 6 thalassaemia, Hb Strait) .OFT was performed in all cases before the other investigation results became available. **Results:** Out of 700 subjects 396 subjects (56.6%) were female and 304 (43.4%) were male. OFT gave definitely positive or equivocal results in 194 of 201 patients with BTT and 96.52% of sensitivity was observed. The test was false positive in 2 (0.75%) of 268 normal subjects and 99.25% of specificity was observed. There were 2.56% of false negative results with 97.44% of NPV and the 98.97% of PPV. The efficiency of test was 98.08% indicating that only 1.92% of BTT cases were misclassified. We found only 2 confirmed IDA patients and 2 suspected alfa thai trait patients in which both categories gave OFT positivity of 1/2 (50%).0ur test also found positive results as follows: Hb E trait, 5/9 (55.6%); E thalassaemia, 4/4 (100%); Hb S trait, 1/1 (100%); delta beta, 1/1 (100%); beta thai major, 2/3 (66.7%). **Conclusions:** OFT is a sensitive, cost effective, rapid and reliable primary screening test for the detection of BTT a nd other haemoglobinopathies in a population with financial restrictions. It can be easily performed in the field. Al so a negative OFT is very useful in ruling out BTT and OFT positive samples need further investigations to establish the diagnosis.

P-RCD 03

Hemoglobin E-Beta Thalassemia in Uttar Pradesh and Approach for Prenatal Diagnosis

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Objective: To evaluate the molecular makeup of hemoglobin E-beta thalassemia to facilitate diagnosis, genetic counseling and prenatal diagnosis in Uttar Pradesh. **Method:** Referred hemolytic anemia cases of Genetics OPD of Tertiary care centre were included in the present study from the year 2012-2016. All anemias related [9547] patient were evaluated at hematological, biochemical and molecular level. We found 113 subjects of Hemoglobin E variants of which 44 subjects as E-thalassemia [EB thalassemia]. Red Blood cell indices, osmotic fragility, hemoglobin electrophoresis/ quantitative evaluation of fetal hemoglobin, HbA2/E on Hemoglobin variant system, serum iron and total iron binding capacity estimation were carried out in all the blood samples as hematological and biochemical evaluation. However for molecular evaluation genomic DNA was extracted and subjected for sequencing analysis to confirm HbE mutation and beta thalassemia mutations. **Results:** The commonest, IVS I-5(G-C) mutation (70%) was found along with HbE mutation. All 44 cases belonged to the group of common Beta-thalassemia mutations as described in literature. **Conclusion:** Establishment of antennal diagnostic services is necessary in the parts of India where both these mutations are commonly seen.