



Figure. Significant correlation between pulmonary artery pressure and cardiac iron.

Conclusion: All patients with transfusion dependent thalassaemia major should be screened with a cardiac MRI for iron overload from the age of 7 years as serum ferritin done serially alone does not detect tissue iron deposition. Aggressive chelation with the addition of deferasirox which acts synergistically with deferasirox or desferrioxamine must be commenced to reduce the incidence of cardiomyopathy in these patients despite a low serum ferritin value. This is the first comprehensive study of cardiac iron in India and we plan to follow up this cohort annually to evaluate the outcome of the intervention with serial cardiac MRI.

RBC-1_V1.3

A PROSPECTIVE OBSERVATIONAL STUDY ON CLINICO-ETIOLOGICAL PROFILE OF PANCYTOPENIA IN CHILDREN

M. Alim¹, A. Kumar², N. Verma¹, V. Pooniya¹. ¹ Department of Pediatrics, KGMU, Lucknow, India; ² Department of Pediatric Hemato-Oncology, KGMU, Lucknow, India

Background: Pancytopenia is a disorder in which all three major formed elements of blood (red blood cells, white blood cells and platelets) are decreased in number. Relevance of the study lies in the timely intervention for the causes of pancytopenia which can either bring about a complete cure or at least a remission from the disease entity. In India not many studies have been done on this topic especially in pediatric age group so the present study has been undertaken to evaluate the various causes of pancytopenia, their clinical profile and outcome.

Methods: This was a prospective observational study of 81 patients aged between 1 month to 15 years admitted to Department of Pediatrics of King George Medical University, Lucknow during August 2015 to July 2016 with Hb < 10g/dl, TLC < 4000/mm³ and platelets < 1 lakh/mm³. Patients undergoing/already undergone chemotherapy and radiotherapy were excluded. After informed consent, a detailed medical history, physical examination, complete blood counts, anaemia workup, viral markers, bone marrow examination was done along with transfusion records, treatment received and outcomes were analysed.

Results: The bulk of patients were from rural background (87%). The mean age at presentation was 74 months (range 1–180 month) with Male:Female – 2.8:1.

The most common clinical presentations were fever (78%), pallor (67%), bleeding manifestations (43%); past h/o jaundice (5%) and pesticide exposure (8%); hepatomegaly (56%) splenomegaly (42%) Lymphadenopathy (22%) and knuckle hyperpigmentation (14%).

The haematological parameters showed mean haemoglobin level: 4.9 gm/dL, WBC: 2676/mm³, ANC: 1009/mm³, platelet: 43700/mm³, MCV: 85.5 MCH: 30.5 RDW: 23.5 B12 487.7 Folate 12.3 Ferritin 777 s.Iron 179.8 .PNH clone was present in 2.1%, Parvo B19 in 6% and EBV in 7% of patients.

5 patients (6%) were lost to follow up or expired before any treatment was initiated.

Most common causes of pancytopenia found in our study were Aplastic Anemia (49%), Acute leukemia (27%) and Megaloblastic/

Nutritional (18%). Infections (9%) and hypersplenism (6%) etc accounted for the rest.

All patients with megaloblastic anemia survived despite no transfusions. But patients with very severe Aplastic Anemia and hematological malignancies had worse outcomes despite ATG courses ; multiple transfusions and induction chemotherapy respectively. Patient with Kala Azar, chronic Malaria infections and hypersplenism survived after appropriate treatment. Also hospital stay was prolonged for leukemias and Aplastic Anemia.

Conclusion: The etiology of pancytopenia varies widely ranging from transient marrow viral suppression, drugs etc to marrow infiltration by life-threatening malignancy. The severity of pancytopenia and the underlying pathology determine the management and prognosis of the patients. Hence such studies will help in planning the diagnostic and therapeutic approach in patients with pancytopenia and curtailing delays to reduce multiple transfusions, pre-treatment infections and overall morbidity and mortality associated with entity of Pancytopenia.

RBC-1_V1.5

ADVERSE DRUG EVENTS WITH IRON CHELATION DRUGS IN THALASSEMIC PATIENTS ATTENDING A DAY CARE THALASSEMIA CENTRE IN TERTIARY CARE GOVT. MEDICAL COLLEGE IN NORTH INDIA

Kishore Kumar Digra, Sanjeev Kumar Digra, Rajesh Kaul, Subhash Singh Sialthia. Department of Pediatrics, SMGS Hospital, Government Medical College, Jammu, India

Introduction: The Last three decades have witnessed profound changes in the management of patients with thalassemia major. Regular and periodic blood transfusion being the main stay of treatment results in iron overload thus necessitating need for iron chelation. At present three iron chelators namely, Desferrioxamine, Defriprone and deferasirox are in use alone or in combinations. Since the iron chelators are required to be given for the lifetime they also cause adverse events which are range from trivial to life threatening.

Aims: To identify and manage adverse drug events due to iron chelating drugs experienced by thalassemic patients.

Material and methods: This is an observational study done during 1st January to 30th June 2016 in Thalassaemia Day Care Centre of SMGS hospital, Govt. Medical College Jammu. All the adverse events were recorded on a pretested proforma and were validated on Naranjo causality assessment scale.

Results: Of the 280 patients with the age ranging from 6 months to 53 years registered with Thalassaemia Day Care Centre SMGS hospital Govt. Medical College Jammu only 180 attended regular fortnightly follow up clinics. Out of these 180 patients 168 are on Iron chelation drugs (129 on Defriprone, 24 on Deferasirox, 8 on Defriprone + Desferrioxamine, 4 on Desferrioxamine and 3 on Defriprone + Desferrioxamine). Out of 32 events observed during the course of study 21 (65.62%) were due to Defriprone, 8 (25%) due to Deferasirox and 3 (9.38%) due to Desferrioxamine. Out of 21 events due to Defriprone 12 (57.14%) were gastrointestinal symptoms, 5 (23.8%) arthropathy, 2 (9.5%) Neutropenia and 2 (9.5%) thrombocytopenia. All 8 (100%) events due to Deferasirox were gastrointestinal symptoms. 2 (66.66%) events with desferrioxamine were local reactions and 1 (33.33%) was encephalitis. On Naranjo Casualty scale 5/32 was definite while as 24 /32 was probable and 3/32 were possible. While 9 were mild reactions, 4 were severe reactions and 19 were moderate reactions.

Conclusion: Majority of adverse events were observed with Defriprone followed by Deferasirox. Although least adverse events were observed with desferrioxamine, but adverse events with deferasirox were least severe.

Keywords: Adverse drug events, Iron chelation, Thalassaemia

RBC-1_V1.6

ACQUIRED APLASTIC ANAEMIA IN CHILDREN – OPTIMAL OUTCOMES DEPEND ON OPTIMAL DELIVERY OF IMMUNOSUPPRESSIVE THERAPY

Dhaarani Jayaraman, Ramya Uppuluri, Divya Subburaj, Venkateshwaran, Revathi Raj. Department of Paediatric Haematology, Oncology and Blood and Marrow Transplantation, Apollo Speciality Hospital, Chennai, India