Meetings International
SciTechnol

Niranjan Bhattacharya, J Diagn Tech Biomed Anal 2018, Volume: 7
DOI: 10.4172/2469-5653-C2-013

International Conference on
CELL AND STEM CELL RESEARCH
&
International Conference on
MEDICAL AND SURGICAL NURSING

August 17-18, 2018
Singapore City, Singapore

Niranjan Bhattacharya

Calcutta School of Tropical Medicine, India

A preliminary clinical report of 193 units of placental umbilical cord whole blood transfusion in HIV-positive patients with anemia and emaciation

Cord blood, because of its rich mix of fetal and adult hemoglobin, high platelet and WBC counts, and a plasma filled with cytokine and growth factors, as well as its hypo antigenic nature and altered metabolic profile, has all the potential of a real and safe alternative to adult blood transfusion. Our team's experience (from 1st April 1999 till date) with 183 units of placental umbilical cord whole blood (72 ml-150 ml mean 85 ml +/- 8.8 ml SD, median 86 ml, mean packed cell volume 48.8 +/- 5.2 SD, mean percent hemoglobin concentration 17.3 g/dl +/- 2.6 g/dl SD; after collection the blood was immediately preserved in a refrigerator and transfused within 72 hours of collection) collected after lower uterine cesarean section (LUCS), and the transfusion to 56 consenting HIV-positive patients (16 cases had full blown AIDS) with anemia and emaciation is presented here. On the basis of our preliminary experience of cord blood transfusion, we are of the opinion that umbilical cord whole blood transfusion is safe in HIV-positive patients. This blood has the potential to carry more oxygen than adult blood due to its high fetal haemoglobin content, and it does not trigger any clinical, immunological or non-immunological reaction after its transfusion to an adult host with a HIV-positive status. Apart from the correction of anemia, there was also definite improvement in the energy and fatigue levels in individuals with HIV, i.e., physical functioning, a sense of well-being and weight gain from two to five pounds, within three to ten months of the commencement of transfusion. There was also an immediate rise in CD34 levels of peripheral blood in the HLA-randomized host after transfusion, without any clinical graft vs host reaction.The structural and functional integrity of the placental barrier and its screening ability of the maternal infection is an added advantage with this fetal blood transfusion in adult patients.

Biography

Niranjan Bhattacharya holds a MD in Obstetrics and Gynaecology, MS in General Surgery and a DSC in Developmental Immunology. His principal specializations are cell and tissue therapy. Has presented Invited lectures in several international universities and institutions. Has published widely in international and national journals on cord blood and regenerative medicine; is the co-editor of five books on the subject published by Springer. Currently, Chair Professor and Head of the Department, Regenerative Medicine and Translational Science, and Director General, first Public Cord Blood Bank in India, Calcutta School of Tropical Medicine, Kolkata. Cited among top five global cord blood influencers by BioInformant.

sanjuktaniranjan@gmail.com