

Rapid analysis of hemoglobin variants in beta-thalassemia by HPLC in northern India

Yashwant Kumar Rao
GSVM Medical College, India

Introduction: Beta-thalassemia is the most common and hereditary blood disorder worldwide, most of which are characterized by base substitution or small deletion or insertion of one or two nucleotides in the globin gene. Today due to the mixture of gene pool, this disorder is now not confined to any particular ethnic group/races but each group represents its own sets of mutations. High Performance Liquid Chromatography forms a rapid, sensitive and precise method for detecting abnormal hemoglobin fractions. About 55 cases of Beta-thalassemia have been studied for various hemoglobin variants from Kanpur and adjoining areas.

Material & Method: The study was performed on Agilent 1220 Infinity LC (Agilent Technologies) a High Performance Liquid Chromatography using EZChrom Elite for Beta-thalassemia.

Result: Abnormal hemoglobin variants were analyzed for 55 cases of Beta-thalassemia on High Performance Liquid Chromatography. There were about 18 cases of Beta-thalassemia major and 37 cases of Beta-thalassemia carriers. The frequency observed in our study was HbA1c (0.14), HbF (0.7), HbE (0.45), HbD (0.34), HbS (0.45), and HbA2 (0.52).

Conclusion: Automated High Performance Liquid Chromatography is an appropriate approach for the screening and presumptive identification of patients as well as carriers of Beta-thalassemia prior to DNA studies for definitive diagnosis.

ykraoneo@yahoo.co.in

“STARS” therapy: Development and implementation

S Shrivastava, C Mahakalkar, N Tankhewale, Kishore and A Meghe
Datta Meghe Institute of Medical Sciences (DU), India

Introduction: The wound is a big health problem across the globe. Complexities include there getting infected and associated with co-morbidities such as diabetes, pressure ulcers etc. The current management is unpredictable as well as consumes huge resources and not possible in a standardized manner across all types of health care centers.

Method: Sandeep's Technique for Assisted Regeneration of Skin (STARS) therapy have been developed by the authors as solution for this complex wound problem. It is basically a mono-therapy based on regenerative medicine for wound healing through local infiltration of autologous Platelet rich Plasma (PRP). The therapy absolves the role of complex surgical reconstruction's and drugs, which are currently the standard management of wounds, but are associated additional risks and restrictions.

Study: In this Paper a detail description of the STARS therapy including its evolvement, the analysis of sub component (metabolomics by mass chromatography of PRP) and clinical outcome is presented.

Conclusion: The STARS therapy is evolved with the intention of making the wound management safe, predictable and accessible across the globe including from primary care to tertiary care.

drsandeepshrivastava@hotmail.com

Notes: