**PREVALENCE OF INHIBITORS IN HEMOPHILIA - A SINGLE CENTRE STUDY**

Department of Pathology, JJM Medical college, Davangere & Karnataka Hemophilia Society and Hematology research centre, Davangere.

**Authors:** Dr.Parismrita Borah, Dr. Suresh Hanagavadi, Dr. K.S.Rajasekhar, Dr. M.T.R. Thippeswamy, Dr. S.S.Hiremath, Dr. Narasimha Subbaraya.

**Introduction:**

- Inhibitor development remains one of the biggest challenges in the management of people with hemophilia.
- The mechanism of development of factor VIII & factor IX inhibitors is quite complex and not yet fully understood & it is difficult to predict inhibitor development (as it appears to be multifactorial & influenced by various genetic, non-genetic risk factors).
- There are several studies from different parts of the world but this study is the first attempt at describing prevalence of inhibitors in the population registered with a hemophilia treatment centre in South India.
- The magnitude of the problem of inhibitors in our country remains still unclear as facilities for identification of inhibitors is extremely scarce.
- This study is therefore aimed to identify patient with inhibitors and to stratify them for appropriate therapeutic interventions.

**Objectives:**

1. To screen the previously treated patients with hemophilia for development of inhibitors.
2. To quantify inhibitors by Nijmegen modification of Bethesda assay.

**Materials and Methods:**

- 131 previously treated cases belonging to mild, moderate and severe hemophilia (107 hemophilia A and 24 hemophilia B) were studied over a period of two and half years from July 2013 to January 2016.
- After taking informed consent, under aseptic condition venous blood was collected in 3.2% sodium citrate in the ratio of 9:1.
- Screening of inhibitors was done by APTT mixing studies while quantification was done by Nijmegen modification of Bethesda assay.

**Results:**

- 23 out of 107 cases with Hemophilia A (21.5%) and 1 out of 24 cases with hemophilia B (4.2%) were found to be positive for inhibitors.
- Out of 23 inhibitor positive cases in hemophilia A, 12 cases (52.2%) showed low titer inhibitors while 11 cases (47.8%) showed high titer inhibitors.
- The inhibitor positive case in hemophilia B showed low titer inhibitor.

**Conclusion:**

The prevalence of inhibitors in hemophilia A in this region correlates with the prevalence published in the western literature. However there is a need for a larger study to understand the complex process of inhibitor development for better management of patients with hemophilia.

**Bibliography:**