PREVALENCE OF INHIBITORS IN HEMOPHILIA- A SINGLE CENTRE STUDY

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Introduction:

•Inhibitor development remains one of the biggest challenge 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.

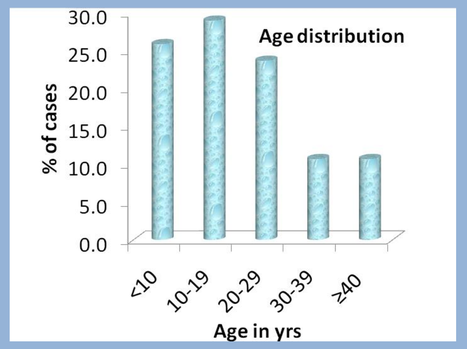
2. To quantify inhibitors by Nijmegan modification of Bethesda assay.

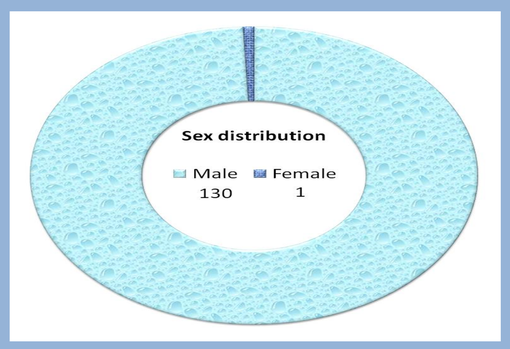
Materials and Methods:

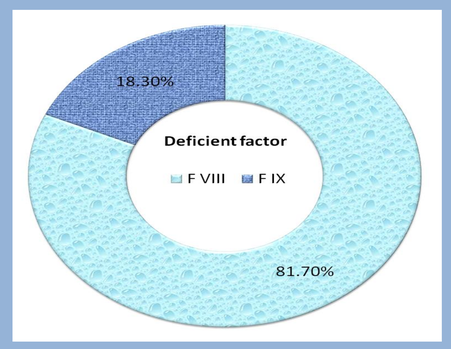
•131 previously treated cases belonging to mild, moderate and severe hemophilia (107 hemophilia A and 24 hemophilia B) were studied over a period of two and half years from July 2013 to January 2016.
•After taking informed consent, under aseptic condition venous blood was collected in 3.2% sodium citrate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

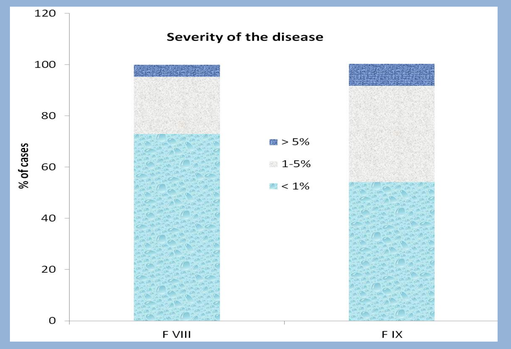
Results:

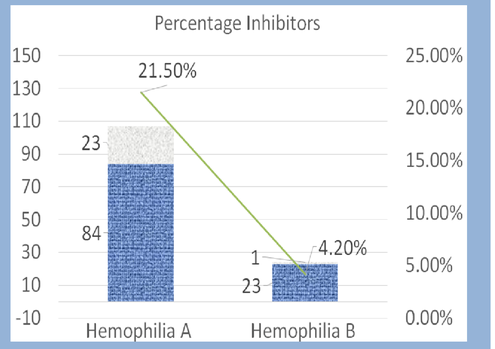
•23 out of 107 cases with Hemophilia A (21.5%) and 1 out of 24 cases with hemophilia B (4.2%) were found to be positive for inhibitors.
•Out of 23 inhibitor positive cases in hemophilia A, 12 cases (52.2%) showed low titer inhibitors while 11 cases (47.8%) showed high titer inhibitors.
•The inhibitor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

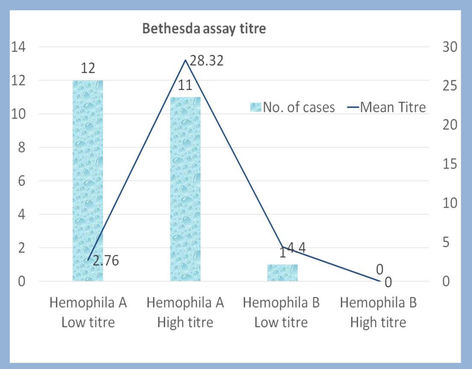


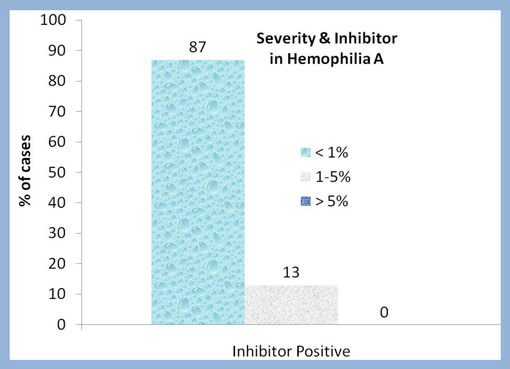


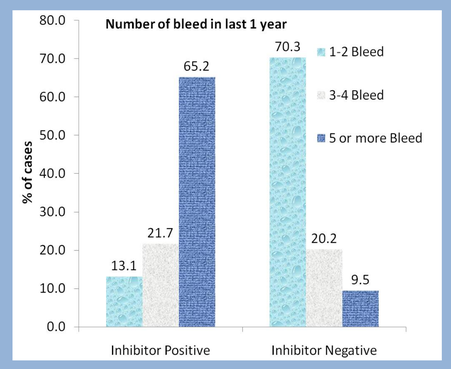


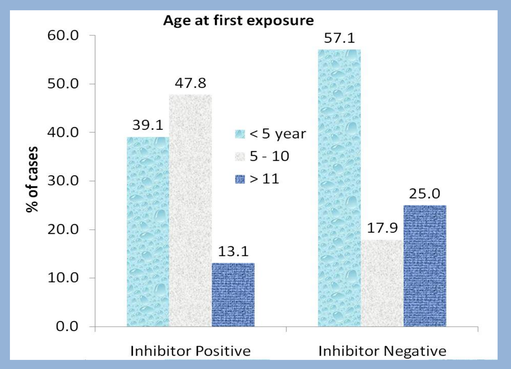


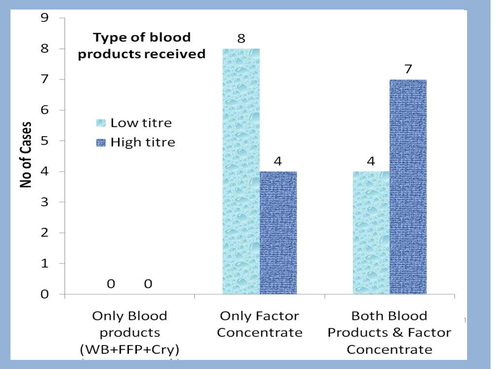












Conclusion:

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.

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