

# Hereditary disorders of blood coagulation factors amongst Jews

H.D. Solomons

P.O.Box 64203, Highlands North. 2037

\*Correspondence Author: H.D. Solomons, P.O.Box 64203, Highlands North. 2037

Received date: December 02, 2023; Accepted date: February 15 2024; Published date: February 22, 2024

Citation: H.D. Solomons, (2024), Hereditary disorders of blood coagulation factors amongst Jews, Clinical Oncology Case Reports, 3(1); DOI: 10.31579/ 2834-5061/13

Copyright: © 2024, H.D. Solomons. This is an open-access article distributed under the terms of The Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

## Abstract

Factor XI (plasma thromboplastin antecedent) deficiency is frequently found amongst Ashkenazi Jews.

This is picked up on routine bloods such as partial thromboplastin times. The prothrombin time is usually normal. There is no excess bleeding after trauma. They may however still bleed excessively after surgery.

**Keywords:** surgery; mucousal surfaces

## Introduction

Factor XI (plasma thromboplastin antecedent) deficiency is frequently found amongst Ashkenazi Jews.

This is picked up on routine bloods such as partial thromboplastin times. The prothrombin time is usually normal. There is no excess bleeding after trauma. They may however still bleed excessively after surgery.

In terms of treatment or therapy the factor XI level must be kept at greater than 30 % with fresh frozen plasma 5-20 mL/kg. / day. The inheritance is autosomal recessive. In Israel the incidence is 8% amongst Ashkenazi Jews.

Factor XI deficiency is also known as; Rosenthal Syndrome or Haemophilia C.

Sometimes the child may bleed excessively e.g., at circumcision but they do not bleed as severely as haemophiliacs (factor VIII deficiency) and rarely

present with haemarthroses. Haemorrhage is usually from mucousal surfaces.

Factor XI concentrate is available but is difficult to obtain. The amount of factor XI in fresh frozen plasma is minimal and for this reason large volumes have to be given.

Ashkenazi Jews are usually of European descent and Sephardi Jews are usually of Spanish descent. But non- Jews may present with the disorder, largely due to assimilation.

There are two predominant mutations, type II and III (using an older classification system). The type III mutation is an amino acid substitution (Phe283Leu) resulting in a missense mutation. This results in impaired dimerization and secretion of the factor XI molecule. The second is the type II mutation; this causes premature chain termination and results in very low levels of circulating factor XI.

**Ready to submit your research? Choose ClinicSearch and benefit from:**

- fast, convenient online submission
- rigorous peer review by experienced research in your field
- rapid publication on acceptance
- authors retain copyrights
- unique DOI for all articles
- immediate, unrestricted online access

**At ClinicSearch, research is always in progress.**

Learn more <https://clinicsearchonline.org/journals/clinical-oncology-case-reports>

article's Creative Commons licence and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder. To view a copy of this licence, visit <http://creativecommons.org/licenses/by/4.0/>. The Creative Commons Public Domain Dedication waiver (<http://creativecommons.org/publicdomain/zero/1.0/>) applies to the data made available in this article, unless otherwise stated in a credit line to the data.