

Documents

van Dievoet, M.-A.^{a b}, Stephenne, X.^{b c}, Rousseaux, M.^a, Lisman, T.^d, Hermans, C.^e, Deneys, V.^a

The use of prothrombin complex concentrate in chronic liver disease: A review of the literature
(2023) *Transfusion Medicine*, .

DOI: 10.1111/tme.12969

^a Laboratory Department, Cliniques Universitaires Saint-Luc, Brussels, Belgium

^b Pediatric Hepatology and Cellular Therapy Laboratory, Institut de Recherche Expérimentale et Clinique (IREC), Université catholique de Louvain, Brussels, 1200, Belgium

^c Pediatric Gastroenterology and Hepatology Division, Cliniques universitaires Saint-Luc, Brussels, Belgium

^d Surgical Research Laboratory and Section of Hepatobiliary Surgery and Liver Transplantation, Department of Surgery, University of Groningen, University Medical Center Groningen, Groningen, Netherlands

^e Haemostasis and Thrombosis Unit/Haemophilia Treatment Centre/Division of Haematology, Cliniques Universitaires Saint-Luc, Brussels, Belgium

Abstract

Patients with chronic liver disease (CLD) and cirrhosis present a rebalanced hemostatic system in the three phases of haemostasis. This balance is however unstable and can easily tip towards bleeding or thrombosis. Management of both spontaneous bleeding and bleeding during invasive procedures remains a challenge in this patient population. Transfusion of blood products can result in circulatory overload and thereby worsen portal hypertension. As an alternative to fresh frozen plasma (FFP), prothrombin complex concentrates (PCC) may have merit in patients with liver disease because of their low volume. The impact of PCC in in-vitro spiking experiments of cirrhotic plasma is promising, but also warrants cautious use in light of thromboembolic risk. The majority of existing studies carried-out in CLD patients are retrospective or do not have an adequate control arm. A prospective study (the PROTON trial) was set up in 2013 to investigate the utility of PCC in patients undergoing liver transplantation. However, the study has never recruited the planned number of patients. Robust data on PCC safety in CLD is also required. The limited existing evidence does not seem to indicate an excessive thromboembolic risk. Currently, the utilisation of PCC in CLD cannot be routinely recommended but can provide an option for carefully selected cases in which other measures were not sufficient to control bleeding and after delicately weighing risks and benefits. © 2023 British Blood Transfusion Society.

Author Keywords

bleeding; chronic liver disease; cirrhosis; prothrombin complex concentrate; thromboembolic risk

Correspondence Address

van Dievoet M.-A.; Laboratory Hematology Department, Belgium; email: marie-astrid.vandievoet@uclouvain.be

Publisher: John Wiley and Sons Inc

ISSN: 09587578

CODEN: TRMDE

PubMed ID: 36941801

Language of Original Document: English

Abbreviated Source Title: Transfus. Med.

2-s2.0-85150936402

Document Type: Review

Publication Stage: Article in Press

Source: Scopus