The Official Journal of the Italian Society for the Study of Hemostasis and Thrombosis
SISET
Società Italiana per lo Studio dell'Emostasi e della Trombosi
Corso Nazionale SISET
Bergamo | 23-25 ottobre 2025

29TH NATIONAL CONFERENCE OF THE ITALIAN SOCIETY FOR THE STUDY OF HEMOSTASIS AND THROMBOSIS, 2025

ABSTRACT N. PO27

B-CELL LYMPHOPROLIFERATIVE DISORDER AND ACQUIRED COAGULOPATHY: AN INSIDIOUS LINK.

C. Caputo, P. Conca, I.L. Calcaterra, E. Cimino, M. Romeo, M. Aversano, E. Franco, C. De Luca, R. Russo, C. Fierarossa, M. Di Minno, A. Tufano.

Department of Clinical Medicine and Surgery, Federico II University, Naples.

Background: Acquired coagulation factor inhibitors are autoantibodies that may develop in individuals with autoimmune or neoplastic disorders and should be assessed in patients without personal or familiar history of bleeding disorders. These inhibitors most commonly target factor VIII (FVIII) or von Willebrand factor (VWF), resulting in acquired haemophilia A or acquired von Willebrand disease, respectively and may occasionally interfere with the normal activity of other coagulation factors.

Case Report: An 81-year-old female presented with recurrent episodes of anterior epistaxis and ecchymoses, without history of personal bleeding disorders. Laboratory testing revealed deficiencies in vitamin K–dependent factors (except for factor IX) in the absence of liver dysfunction or other known causes of coagulopathy, raising suspicion of an acquired haemorrhagic disorder. Past medical history included an indolent B-cell lymphoproliferative disorder, under haematological follow-up and arterial hypertension. Clinically, the patient exhibited persistent mucocutaneous bleeding associated with progressive anaemia and transient memory deficits. Due to suspected central nervous system involvement, an MRI was performed, revealing a small haemorrhagic area in the fornix of the limbic system. At the admission, coagulation studies confirmed markedly abnormal coagulation parameters: PT/INR 5.36 and aPTT 1.56. The mixing test showed suboptimal correction. The laboratory evaluation revealed: Factor IX 171%, Factor II 5%, Factor VII 17%, Factor X 7%, Protein S 51%, and Protein C 24%. Mixing studies for Factors II and VII demonstrated suboptimal correction, suggesting the presence of inhibitors. Lupus anticoagulant and antiphospholipid antibodies were negative. According to these results, we hypnotized the presence of a poly-specific serum para-protein interfering with clotting factors. Intravenous vitamin K (Konakion 10 mg) induced a not significant resolution of PT prolongation followed by a rebound increase to 4.66 and 5.27. PIVKA-II levels were 41 AU/mL (negative), supporting the lack of a functional vitamin K deficiency. Immunosuppressive steroid therapy with prednisone was started at the time of admission. Given the known lymphoproliferative disorder, the possibility of a neoplastic trigger for the coagulation abnormality was considered. Flow cytometry confirmed the presence of a B-cell clone expressing CD20, with a 2% blast count. After 15 days of steroid therapy without clinical improvement, a pharmacokinetic assessment was conducted following the administration of a 4-factor prothrombin complex concentrate (PCC). Factor levels were measured at baseline and several time points post-infusion (30 min, 1h, 2h, 4h, 12h, 24h). A marked decline in circulating coagulation factors was noted after 4 hours, with the greatest reduction observed for Factor II, suggesting preferential inhibitory activity against this factor, likely due to the presence of a neoplastic paraprotein. Therapy with rituximab (anti-CD20 monoclonal antibody) was then introduced at the standard dose of 375 mg/m^2 weekly for four weeks with complete normalisation of coagulation.

Conclusions: This case highlights the diagnostic and therapeutic challenges posed by rare coagulation inhibitors. The successful use of rituximab underscores the relevance of B--cell–directed immunosuppression in managing such complex cases, particularly in the context of clonal B-cell disorders.

Email: *chiara030398@gmail.com*