

Haemostaseological pearls

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The current issue of *Hämostaseologie*—Progress in Haemostasis does not include contributions to a specific topic but several articles that have undergone revision and deserve publication in this separate issue of the Journal. This edition includes original articles, images in thrombosis and haemostasis/case reports, and a review.

Original Articles

Venous thromboembolism is an often-recognized complication in cancer patients. Low-molecular-weight heparin is still considered one of the standard treatments for cancer-associated thrombosis and was shown to be more efficacious and at least as safe as vitamin K antagonists (VKAs) for this indication. In the era of direct oral anticoagulants (DOACs), Riess et al¹ aimed to elucidate the reality of anticoagulation treatment in 7,313 German patients with cancer. In terms of duration of anticoagulation treatment, prescriptions were guideline-conform and considered patient prognosis. In terms of selection of anticoagulant drugs however, the choice of the respective agent was often not in compliance with the contemporary label or guidelines.

Bleeding after tooth extraction is considered one of the main complications in patients anticoagulated with DOACs or VKA. The study by von Beckerath et al² analyzed nationwide time trends of both oral anticoagulant prescriptions and hospitalization for tooth extraction in Germany from 2006 through 2017. Results show that the large increase in oral anticoagulant treatment rates from 2006 to 2017 had only a small impact on hospitalized tooth extraction cases. At the same time, the number of cases with long-term anticoagulant use in these cases did not increase after 2014.

Relevant bleeding requiring red blood cell transfusion was rare.

Pulmonary thromboembolism is an important complication of venous thrombosis leading to severe morbidity and mortality. One possible predisposing factor may be an imbalance in the coagulation and fibrinolysis system. In the study by Yildiz et al,³ initial median thrombin-activatable fibrinolysis inhibitor (TAFI) levels were significantly increased in patients with pulmonary thromboembolism compared to a control group. Increased TAFI was significantly correlated with pulmonary thromboembolism but not with treatment outcome.

The synthetic derivative of vasopressin, 1-deamino-8-D-arginine vasopressin (DDAVP), induces release of factor VIII and von Willebrand factor (VWF) from endothelial cells and can consequently be used to treat or prevent bleeding in patients with mild hemophilia A or VWF disorders. So far, no consistent data are available on the interaction of DDAVP with platelets, although DDAVP may be an efficacious treatment option for some platelet disorders, too. The effects of DDAVP on the release of platelet microparticles through platelet activation were studied in 18 patients by Persyn et al.⁴ Results of this study were quite heterogeneous showing a clear increase in platelet microparticles after DDAVP in some patients and no increase in others.

Images in Thrombosis and Hemostasis

Venous thrombosis was widely reported in patients with COVID-19. In this separate edition of *Hämostaseologie*, two unusual images of arterial thrombosis related to mild COVID-19 are illustrated. The first image is a celiac artery thrombosis and splenic infarction in a 42-year-old female reported by Arslan.⁵

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The second image is an acute splanchnic arterial thrombosis, spontaneous dissection, and solid organ infarction in a 57-year-old man reported by Voci et al.⁶

Case Report

Jayant et al⁷ report a rare case of spontaneous intraabdominal hemorrhage requiring surgical evacuation in a 32-year-old Indian man with severe hemophilia A, which was only diagnosed at the time of bleeding event.

Review

Several studies have investigated the role of different DOACs in the treatment of patients with acute or chronic coronary artery disease, and with atrial fibrillation undergoing percutaneous coronary intervention. The review by Al Said et al⁸ provides an excellent comprehensive summary of these most recent clinical studies that is worth reading.

On behalf of the Editorial Board Members, we thank all authors for their great contribution to this issue of *Hämostaseologie—Progress in Haemostasis*. We would also like to take this opportunity to thank all colleagues who, through their commitment, ensure a professional review of submitted articles. Last but not least, we also thank our loyal readers for their trust in this Journal.

References

- 1 Riess H, Kretzschmar A, Heinken A, Mohebbi D, May M, Schellong S. Anticoagulation Therapy in Cancer Patients with Thrombosis in the Outpatient Sector of Germany (The CERTIFICAT Initiative)-German Practice of Anticoagulation Therapy of Cancer Patients with Thrombosis. *Hamostaseologie* 2021; 42:166–173
- 2 von Beckerath O, Kröger K, Santosa F, Nasef A, Kowall B, Stang A. Increasing use of anticoagulants in Germany and its impact on hospitalization for tooth extraction. *Hamostaseologie* 2021; 42:174–179
- 3 Yıldız A, Katar D, Soydaş AÖ, Albayrak M. Association of thrombin-activatable fibrinolysis inhibitor with acute pulmonary embolism. *Hamostaseologie* 2021;42:180–184
- 4 Persyn M, Athanase N, Trossaërt M, et al. Effect of DDAVP on platelet activation and platelet-derived microparticle generation. *Hamostaseologie* 2021;42:185–192
- 5 Arslan G. celiac artery thrombosis and splenic infarction as a consequence of mild COVID-19 infection: report of an unusual case. *Hamostaseologie* 2021;42:193–194
- 6 Voci D, Micieli E, Johner FA, Kucher N, Barco S. Thrombosis and dissection of the abdominal arteries associated with infarcts of solid organs in a patient with COVID-19: a novel clinical entity. *Hamostaseologie* 2021;42:195–197
- 7 Jayant D, Sakaray Y, Thakur U, et al. Spontaneous intra-abdominal hemorrhage in a hemophilia A patient masquerading as intra-abdominal pseudotumor. *Hamostaseologie* 2022;42: 198–200
- 8 Al Said S, Ellscheid M, Beltsios ET, Frey N. Non-vitamin K antagonist oral anticoagulants in coronary artery disease. *Hamostaseologie* 2021;42:201–209