

European Congress on HEMATOLOGY

June 14-15, 2021 | Webinar

Hormones and thrombosis: risk across the lifespan**Margaret V Ragni***University Pittsburgh, USA*

Statement of the Problem: Endogenous and exogenous hormones have significant effects on coagulation and may tip the hemostatic balance toward thrombosis. Given the importance of sex hormones to women's and men's health, there is impetus to understand the mechanism of thrombosis and the approach to reduce thrombotic risk.

Background: The endogenous hormonal changes in pregnancy and polycystic ovary syndrome may increase thromboembolism risk. Similarly, the exogenous changes with hormonal contraception, with hormone replacement in menopause, and with transgender cross-hormone replacement may increase thromboembolism risk. Using the lowest effective dose is critical for prevention, but once thrombosis occurs, anticoagulation may be required, in some, long-term.

Methods: We reviewed the relative risk of thrombosis in individuals with endogenous hormonal and exogenous hormonal conditions, associated risk factors, and specific anticoagulation treatment and prevention based on the latest American Society of Hematology (ASH) Thromboembolism Guidelines.

Results: Estrogen-, progestin-, and testosterone-based therapies show a wide range of thrombosis risk, depending on agent formulation and patient risk factors. With a myriad of treatment choices, and range of personal risk factors, risk-benefit conversations with patients is critical, as is review of current ASH anticoagulation guidelines for thrombosis.

Conclusion and Significance: Implementation of lowest effective hormonal therapies, thrombosis reduction strategies, and current anticoagulation management are critical for optimal patient outcomes.

Biography

Margaret Ragni is active in clinical translational research on 25 active grants, as PI for a NHLBI U01 and T35, and Co-Director of a hematology T32. She serves as mentor on institutional R38, K12, and K23 grants, faculty on a R25 training grant in experimental and translational hematology, and ATHN, VMI, and pharmaceutical grants. Her prospective cohort, observational, case-control studies, and novel drug trials were among the first multi-center NIH-funded studies in hemophilia/VWD. She mentors T32, T35, and K23 trainees. Her honors include the Kenneth Brinkhous Research Award, Kenneth E. Schuit Educator Award, G. David Roodman Mentoring Award, Murray Thelin Research Award, Max Wintrobe Endowed Lectureship, Ariel Distenfeld Memorial Lectureship, Green Family Lectureship, and NHF Research Leadership Award. She served as a member of the 2020 WFH Guidelines Committee for Management of Hemophilia and is a Working Group Co-Chair for the 2021 NHF State of the Science Research Summit

ragni@pitt.edu