# CAP Author Chat - Whole Blood Viscoelastic Assays in Clinical Diagnosis

November 3, 2023

**Lisa Tomcko:**

Welcome to the latest edition of the College of American Pathologist CAPcast. I'm Lisa Tomcko, content specialist with the CAP. Today I'm joined by Dr. Oksana Volod, editor and co-author of the new book, Whole Blood Viscoelastic Assays and Clinical Diagnosis and Illustrated Case-Based Guide. It's a comprehensive resource on viscoelastic testing for pathologists, clinical laboratory scientists laboratories using this testing method and other healthcare professionals, and it addresses hemostasis physiology, conventional as essays for its assessment and their advantages and disadvantages and therapeutic agents used in patient management. And Dr. Volod, I'm so excited to have you here to give us a look inside the book, so to speak. But first, would you like to introduce yourself?

**Dr. Oksana Volod:**

Hi Lisa, and thank you so much for inviting me to this podcast. I am a clinical pathologist at the Cedar Sinai Medical Center in Los Angeles, California in charge of coagulation, consultative services and the laboratory at Cedar Sinai.

**Lisa Tomcko:**

Great. Thanks so much for joining us today and let's get into the questions. So first off, congratulations on the publishing of Whole Blood Viscoelastic Assays and Clinical Diagnosis. Can you tell us why you led the development efforts for the publication?

**Dr. Oksana Volod:**

The story behind this project is actually quite fascinating. It actually all began when I was serving on the CAP Hemostasis and Thrombosis committee. The committee received a message from the CAP publisher indicating a growing interest and demand for the book on viscoelastic assays, and Dr. Chen and Dr. Goodwin, who were the committee chairs and vice chair at the time, assigned me the responsibility of leading this project. My personal fascination with viscoelastic assays dates back to my residency days when I completed an elective rotation in coagulation in one of the largest hemophilia centers in London, United Kingdom. It was during that time that I was introduced first to the viscoelastic assay tech, which is thrombelastogram. Since then, I have dedicated a significant amount of time and effort to learning about various applications of viscoelastic assays and by now spanning over a period of 20 years. The interesting aspect of this story is that five years prior to the publisher request, I have submitted the proposal to the CAP with the same concept, which was not accepted back then. Therefore, when I was interested with leading this project, I saw it as a fantastic opportunity to share my vision, my knowledge, and expertise with my colleagues personally. I either wrote or co-authored seven out of 20 chapters in the book, and I contributed most of the cases and case scenarios featured in it.

**Lisa Tomcko:**

That's great. And looking through the table of contents, the book chapters, explaining the various tests with case studies for each of them, why did you choose to structure the book in this fashion?

**Dr. Oksana Volod:**

During my training, and even now as a practicing pathologist, I find a case-based color atlas of hemoglobin disorders to be an incredibly valuable resource for learning about hemoglobin neuropathies. Its practicality and visual nature made it an excellent tool. Similarly, when it comes to viscoelastic assay interpretation, it involves analyzing various tracing patterns. This is where an idea for case-based approach originated. Furthermore, for myself and my colleagues contributing to this book, the case oriented format allows us to engage in discussion centered and route real case scenarios. It enable us to provide accurate diagnosis, interpret with scholastic acid results within the context of the patient's clinical history, and establish correlations with conventional coagulation assay. Each case scenario in the book incorporates relevant research articles, guidelines, and expert opinions, ensuring that the latest evidence-based practices are thoroughly discussed.

**Lisa Tomcko:**

Got it. No, that seems like a very helpful approach then to take for readers, who's the intended audience for this book?

**Dr. Oksana Volod:**

The primary objective of this book is to offer a comprehensive and concise guides for professional engagement with scholastic testing. It aims into enhancing understanding of hemostasis, provide guidance on implementing with viscoelastic assay, and assist them in interpretation of the results across diverse clinical settings. This book is especially designed to be highly beneficial for pathologists, clinical laboratory scientists and laboratories utilizing with scholastic testing as diagnostic method. Furthermore, perfusionist, anesthesiologist, and pharmacists who rely on the viscoelastic testing for patients' management will find this book to be a valuable resource for interpreting test results effectively.

**Lisa Tomcko:**

Sounds like it will be of benefit for a lot of professionals within the medical community then beyond just pathologists.

**Dr. Oksana Volod:**

Absolutely, yes.

**Lisa Tomcko:**

That's great. And what other features in this book do you think will be of interest to the clinical pathology and laboratory community?

**Dr. Oksana Volod:**

Apart from the highly informative cases presented in the second and mainly third part of this book, there's a wealth of other valuable information offered. The book begins with a concise of a real hemostasis physiology. Conventional asay used to assess hemostasis therapeutic agents employed in patient's management. Subsequently, it dials into comprehensive description of different risk scholastic assays covering both legacy devices like Thromboelastography Tech 5,000 and Rotational Thrombotelemetry, ROTEM Delta, as well as cartridge based systems like Tech Success, ROTEM Sigma and Quantra. Each's unique characteristics, advantages and limitations are explored. Additionally, edited chapter is included to address the clear regulatory requirements for viscoelastic assist validation. The final section of the book provides an up-to-date overview of the clinical applications of the viscoelastic assays in various domains including pregnancy, trauma, cardiac surgery, liver transplantation, and neonatology. It is my hope that the readers will pursue this book as comprehensive yet concise tool that allows them to refresh their knowledge of hemostasis, understand the FDA approved and off-label clinical applications of the chosen viscoelastic assay, and learn how to interpret different viscoelastic asay results within the context of the patient's medical history.

**Lisa Tomcko:**

So it sounds like it'll be a very thorough treatment of the essays and hopefully a helpful reference point.

**Dr. Oksana Volod:**

Yes, I hope so. Yes, eventually.

**Lisa Tomcko:**

And finally, any parting thoughts you'd like to share with us?

**Dr. Oksana Volod:**

Yes, actually, editing this book has been incredibly rewarding and enlightening experience for me as it marked my first venture as an editor. None of this would be possible without the exceptional group of authors who assess expertise in both hemostatic disorders and with viscoelastic assays. So I would like to truly express my gratitude to the current and former members of Hemostasis and Thrombosis Committee and the College of American Pathologists, as well as my colleagues with they invaluable support and contributions throughout the duration of this project. The CAP staff members assigned for this undertaking played a pivotal, pivotal role in ensuring its success and provided guidance for me at every step of the process. And I'm sincerely thankful for the assistance witnessing the utilization of this book and impact it'll have on the reader will be immensely fulfilling experience, and I eagerly anticipate receiving feedback from the readers. Once again, I extend my appreciation for the opportunity to participate in this podcast.

**Lisa Tomcko:**

Well, thank you. And it sounds like it was a real group effort. So it

**Dr. Oksana Volod:**

Was truly through each step, I didn't know what to do, how to do it. So I align everybody and authors, and that's why I'm grateful to everybody and other people on the team.

**Lisa Tomcko:**

Definitely. Well, so glad it made it to the finish line. Well, thank you so much Dr. Bull, for giving us a preview of the book and insights on this exciting topic. And for all those listening, Whole Blood Viscoelastic Assays in Clinical Diagnosis: An Illustrated Case-Based Guide is out now and available for purchase on the CAP's eStore. The link is in the episode description. We encourage you to check it out. And of course, stay tuned for future episodes of cast. For more information about the CAP, visit cap.org.