

The Journal of Endovascular Resuscitation and Trauma Management: A Timely Endeavor

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Journal of Endovascular Resuscitation and Trauma Management

It is with great pleasure that the editorial staff of the Journal of Endovascular Resuscitation and Trauma Management (JEVTM) welcomes your review of – and participation in – our exciting new endeavor. This initial release of the JEVTM represents the beginning of the first medical journal specifically dedicated to the examination of endovascular applications as tools for resuscitation, hemorrhage control, and definitive trauma management. It is an ambitious undertaking, but one for whose time has come.

Why is now the right time for the initiation of the JEVTM? The answer to this question involves an examination of several key concepts. These include the emergence of new technologies, changing clinical practices and a growing body of multi-disciplinary innovators dedicated to the exploration and study of an expanding set of endovascular capabilities.

Emerging Technologies

The past decades have borne witness to an evolution in endovascular technologies. While many of these innovations were initially developed with the treatment of atherosclerotic and aneurysmal vascular disease pathologies in mind, the applications for hemorrhage control and vascular injury management were quickly appreciated. Endovascular balloons, known to potentially improve outcomes from ruptured abdominal aortic aneurysms, are now increasingly utilized as tools for

bleeding control from non-compressible sites following trauma. Angio-embolization has become a mainstay of treatment capabilities for both pelvic and solid organ injury at most busy trauma centers. Endovascular stent grafts have emerged as the acute treatment of choice for blunt thoracic aortic injuries. Additionally, other endovascular adjuncts, including extracorporeal membrane oxygenation and intra-aortic balloon pump devices, continue to evolve as tools of modern resuscitation.

Initially, many of these advances were achieved using devices that were largely designed for the management of chronic vascular disease. Increasingly, however, devices and capabilities are being engineered to specifically optimize their utilization for victims of trauma and other patients in need of resuscitative salvage. Continued engineering advancements and efforts to define optimal clinical utilization of these devices will require a platform for reporting and critical review. It is our hope that the JEVTM will serve as an effective vehicle for this study.

Changing Practices

With the increasing inclusion of endovascular capabilities in algorithms for hemorrhage control, resuscitation and trauma management other questions regarding practice have emerged. What provider is best suited to employ these technologies? How should they be trained? What expertise is required? The answers to these questions have not been well elucidated, even as the use of endovascular technologies continues to grow.

Beyond the type of providers that should be involved, there also remain questions about the optimal care environment in which these technologies should be delivered. Is a hybrid-operating suite the optimal environment? How much imaging capability is really required? Can some of these capabilities safely be brought to the pre-hospital care environment? These questions are matters of active investigation that require examination in a venue like the JEVTM.

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A Multi-Disciplinary Collaboration

The foundation for the creation of the JEVTM can be traced to discussions that culminated in the February 2017 Endovascular Hybrid and Trauma Management Meeting in Örebro, Sweden. This gathering, sponsored by the University of Örebro, brought together leaders in thought from nations throughout Europe, North America, and Asia. Their diversity in geographic representation was second only to their diversity of training backgrounds. Interventional radiologists, emergency medicine physicians, and surgeons (vascular, trauma and acute care) shared their clinical experiences with not only each other but also a large group of translational

scientists working diligently to provide important foundational data for the next steps in endovascular applications.

In the context of this excellent exchange, many of these multi-disciplinary participants discussed work that had been presented at prestigious meetings and had been published in a wide array of medical journals scattered across a variety of disciplines. It became apparent, however, that there was a need for a platform that might serve as a common ground for this diverse group of providers striving to advance the safe and effective use of endovascular technologies in resuscitation and trauma management. It is our hope that the JEVTM will serve as that needed platform.