

# Pulmonary Embolism: Don't Start Me to Talkin'

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If you provoke the pulmonary embolism (PE) experts into writing, be prepared, as they will not hold back any secrets they are aware of. That is how they did in this special issue of *Hämostaseologie—Progress in Haemostasis*, which focuses on novel and often controversial aspects of the management of acute PE and its sequelae.

**Dr. Hobohm and colleagues**<sup>1</sup> summarized the available evidence regarding the challenges and potential benefits of establishing a pulmonary embolism response team (PERT) for the acute management of patients with the most severe PE cases. We are in a historical phase where minimally invasive endovascular interventions (i.e., local lysis or embolectomy) are spreading worldwide. The reasons behind this include (1) preliminary evidence—primarily from single-arm trials and registries—that such strategies can swiftly improve hemodynamic parameters in acute PE patients, (2) their favorable safety profile, (3) the perception of interventional physicians that these interventions are effective and consequent enthusiasm. Randomized trials with clinical outcomes are still ongoing. Until their completion, PERT will play a pivotal role to individualize the use of available reperfusion strategies.

Although not widely available, venous-arterial extracorporeal membrane oxygenation may be a valuable option in cases of acute PE leading to obstructive shock, including in those patients who require resuscitation. The available evidence is based on anecdotal reports and small case series. The use of venous-arterial extracorporeal membrane oxygenation has been described either as a standalone therapy or as a means to achieve stabilization before performing surgical or catheter-based embolectomy. **Dr. Chopard and colleagues**<sup>2</sup> provided us with an overview of the literature and their personal considerations, including an update of a recently proposed therapeutic algorithm for the management of acute high-risk PE.

The management of the aforementioned patients is contingent upon clinical considerations regarding the age of clots in the pulmonary arteries and the length of symptoms. In recent years, it has emerged that not only a significant proportion of acute PE patients present with a chronic component and that this can be detected with computed tomography pulmonary angiography, but that a significant

proportion of chronic thromboembolic pulmonary hypertension cases might be preexisting, that is already present at the time of index PE. **Dr. Lang and Dr. Delcroix**<sup>3</sup> prepared a case-based review discussing the clinical implications of early detection of chronic PE in the context of acute and long-term patient management.

The recent advances in diagnostic imaging have brought subsegmental PE into the spotlight, sparking debate within the medical community regarding its clinical relevance and optimal treatment strategies. The review prepared by **Dr. Baumgartner**<sup>4</sup> and colleagues comprehensively addresses what is known and what is being done on this topic by providing practical insight into the appropriate management of this condition.

For those who believe that everything has already been said about the use of new oral anticoagulants for the management of acute pulmonary embolism, we recommend reading the review prepared by **Dr. Becattini and colleagues**<sup>5</sup>. The rapid onset of action and the favorable pharmacokinetic profile have established direct oral anticoagulants as the standard of care for the vast majority of acute PE patients. However, the selection criteria and dosing strategies remain crucial, especially in the subgroup of at-risk patients, including the elderly, those with renal impairment, and patients with active cancer. These considerations play a pivotal role in ensuring successful treatment in both the acute and post-acute setting.

All topics concerning the diagnosis, treatment, and follow-up of PE must be approached differently when the patient sitting or lying down in front of you is a pregnant woman. **Dr. O'Rourke and colleagues**<sup>6</sup> reviewed the contemporary management of acute PE in pregnancy. The purely technical aspects regarding the use of specific tests or medications necessarily vary, as their safety and efficacy have rarely been proven. Added to this are pregnancy-specific considerations involving patients' expectations and worries for their own and fetus' health, ethical aspects, social factors, potential medico-legal repercussions, as well as geographical and logistical aspects.

## Conflict of Interest

The authors declare that they have no conflict of interest.

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