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# Consenso español sobre el manejo de la tromboembolia de pulmón

We read the comment by Ciampi-Dopazo et al. with interest and we would like to thank them for their contributions to the recently published consensus<sup>1</sup>. The objective of the consensus as a clinical guideline was to provide recommendations for the optimal management of patients with pulmonary embolism (PE), generated from a systematic review of the evidence and an assessment of the risks and benefits of each intervention.

The consensus document recommends full-dose systemic fibrinolysis as a reperfusion treatment of choice in patients in whom it is not contraindicated. It suggests catheter-directed treatment or low-dose systemic fibrinolysis in patients with absolute or relative contraindications for full-dose systemic fibrinolysis<sup>1</sup>.

There are two rationales behind these recommendations:

- 1 Meta-analyses (from clinical trials) evaluating the efficacy and safety of systemic fibrinolysis (compared with anticoagulation) in more than 2000 patients with acute PE have shown statistically significant reductions in mortality<sup>2</sup>. In contrast, only 1 clinical trial has been published that evaluated the efficacy and safety of catheter-directed treatment (ultrasound-enhanced fibrinolysis) in 59 patients with acute PE and right ventricular dilatation on echocardiography<sup>3</sup>. The trial used an echocardiographic event as an endpoint, but it lacked statistical power to detect differences in clinical events (mortality, recurrent venous thromboembolism, or bleeding). Although clinical records provide useful medical information and can be used to generate hypotheses, they are subject to numerous biases and confounding factors, and should not be used routinely to assess the efficacy and safety of medical interventions.
- 2 The authors have extensive experience in the clinical management of patients with PE and in the application of catheter-directed treatments, but this is not the case for most clinicians and centers that routinely see patients of this type.

Ongoing (NCT04088292, NCT03389971) or pending clinical trials may provide robust evidence of the efficacy and safety of different reperfusion treatments for patients with PE. In the

meantime, this consensus provides an updated framework of information that will help clinicians make the most appropriate decisions for each individual patient.

### **Conflict of interests**

The authors declare that they have no conflict of interest.

#### References

- Lobo JL, Alonso S, Arenas J, Domènech P, Escribano P, Fernández-Capitán C, et al. Multidisciplinary consensus for the management of pulmonary thromboembolism. Arch Bronconeumol. 2021, http://dx.doi.org/10.1016/j,arbres.2021.01.031. S0300-2896(21)00056-9.
- Marti C, John G, Konstantinides S, Combescure C, Sanchez O, Lankeit M, et al. Systemic thrombolytic therapy for acute pulmonary embolism: a systematic review and meta-analysis. Eur Heart J. 2015;36:605–14.
- 3. Kucher N, Boekstegers P, Müller O, Kupatt C, Beyer-Westendorf J, Heitzer T, et al. Randomized controlled trial of ultrasound-assisted catheter-directed thrombolysis for acute intermediate-risk pulmonary embolism. Circulation. 2014;129:479–86.

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## Bronchial Artery Aneurysm and Pseudoaneurysm: Which Endovascular Treatment?



## Aneurisma y pseudoaneurisma de la arteria bronquial: ¿qué tratamiento endovascular?

Dear Editor:

We appreciated the paper of Recalde-Zamacona et al., entitled: Bronchial Artery Pseudoaneurysm and Mediastinal Hematoma after EBUS-TBNA. The authors have well illustrated the first case of bronchial artery pseudoaneurysm as complication of Endobronchial Ultrasound-Transbronchial Needle Aspiration (EBUS-TBNA) treated by the endovascular embolization. Only limited numbers of cases of bronchial artery aneurysm and pseudoaneurysm have been described in literature using endovascular

approaches without an indication/guide line of the various techniques available. \(^{1,2}\)

Bronchial artery aneurysm and pseudoaneurysms are a very rare vascular event, but potentially life-threatening. <sup>1-3</sup> So, they must be treated as quick as possible in urgent setting. latrogenic, vascular wall trauma and inflammation are the main etiologies of bronchial artery aneurysm and pseudoaneurysm. <sup>1-3</sup> Nowadays, endovascular approach is considered the first-line method for most aortic branch artery pathology; as performed by Recalde-Zamacona et al. with endovascular embolization in one of the few cases of bronchial artery pseudoaneurysm described in the literature. <sup>1-5</sup> Skills in endovascular procedures and good knowledge of materials are mandatory to approach these challenging clinical situations. The various endovascular techniques can be applied individually or in combination with each other, since every case can be different from the other. <sup>1-5</sup> Aim of our editorial is to complete and to give a

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