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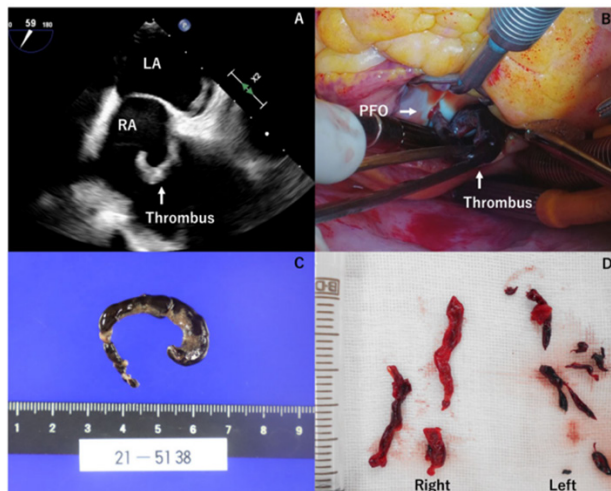
## Treatment strategies for thromboembolism-in-transit with pulmonary embolism

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A 46-year-old obese woman undergoing treatment for bipolar disorder presented with acute shortness of breath, chest pain, and palpitations. She was tachypnea and tachycardia, but blood pressure was stable. Computed tomography angiogram revealed bilateral pulmonary embolism. Echocardiogram revealed thrombus in transit.

She underwent surgical embolectomy only for thrombus-in-transit and closure of the Patent Foramen Ovale (PFO). However, pulmonary hypertension worsened, hemodynamical instability prolonged and hepatic congestion progressed. After Veno-Arterial Extracorporeal Membrane Oxygenation (VA-ECMO) insertion, we performed thrombectomy by catheter and anticoagulation therapy. One month later, the patient was transferred to another hospital for rehabilitation.



**Figure 2:** (A) Transoesophageal echocardiography, worm-like thrombus (arrows) straddling the PFO in both atria. (B) Clot retrieved at embolectomy. A worm-like thrombus was lodged into the PFO. (C) Pathologically, the thrombus has no malignant findings. LA: left atrium; PFO: patent foramen ovale; RA: right atrium. (D) Clot retrieved at thrombectomy by aspiration using a catheter. White and red thrombi were removed from the right PA. Many red thrombi were removed from the left PA. (A color version of this figure appears in the online version of this article.)

### Recent Publications

1. D. S. Hui, F. Fleischman and P. M. McFadden. Thromboembolism-in-transit and patent foramen ovale: Should screening echocardiogram be routine for thromboembolic disease? *Ochsner J* 2016;16:321-3.
2. V. S. Ellensen, S. Saeed, T. Geisner and R. Haaverstad. Management of thromboembolism-in-transit with pulmonary embolism. *Echo Res Pract* 2017;4:K47-k51.
3. S. I. Lee, Y. J. Kim, K. Y. Park and C. H. Park. Rapid evaluation of acute pulmonary embolism with thromboembolism-in-transit. *J Card*

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Surg 2019;34:202-04.

4. W. T. Kuo, M. K. Gould, J. D. Louie, J. K. Rosenberg, D. Y. Sze and L. V. Hofmann. Catheter-directed therapy for the treatment of massive pulmonary embolism: Systematic review and meta-analysis of modern techniques. *J Vasc Interv Radiol* 2009;20:1431-40.
5. H. Tajima, S. Murata, T. Kumazaki, K. Nakazawa, H. Kawamata, T. Fukunaga et al. Manual aspiration thrombectomy with a standard ptca guiding catheter for treatment of acute massive pulmonary thromboembolism. *Radiat Med* 2004;22:168-72.
6. T. Schmitz-Rode, U. Janssens, S. H. Duda, C. M. Erley and R. W. Günther. Massive pulmonary embolism: Percutaneous emergency treatment by pigtail rotation catheter. *J Am Coll Cardiol* 2000;36:375-80.
7. T. Tu, C. Toma, V. F. Tapson, C. Adams, W. A. Jaber, M. Silver et al. A prospective, single-arm, multicenter trial of catheter-directed mechanical thrombectomy for intermediate-risk acute pulmonary embolism: The flare study. *JACC Cardiovasc Interv* 2019;12:859-69.

## Biography

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