



Letter to the Editor

Recently introduced thrombolytic therapy regimens have been sufficiently effective and safer in patients with prosthetic valve thrombosis



To the Editor,

We have read with great interest the article by Araiza-Garaygordobil et al. entitled "Thrombolytic treatment for acute prosthetic valve thrombosis: Is it better than surgery?" [1]. The authors reported a case of mitral prosthetic valve thrombosis (PVT), which was successfully treated with an intravenous bolus of 15 mg tissue type plasminogen activator (t-PA) and continuous infusion of 85 mg t-PA for 90 min. We congratulate the authors for achieving a successful outcome in such a high-risk patient. However, we would like to contribute to the case report discussing the new low-dose slow-infusion thrombolytic therapy (TT) regimens which have been associated with lower complication rates.

TT has increasingly become an alternative to surgery as a first-line therapy in patients with PVT. We agree with the authors that TT provides the advantage of widespread availability and easier administration as compared to surgery [2]. However, standard TT regimens with accelerated and high dose t-PA (as used in the present case) may still be associated with higher complication and mortality rates. Recently, several trials have been reported regarding the safety and efficacy of TT regimens with low-dose and slow-infusion of t-PA [2]. In TROIA Trial, low dose (25 mg) – slow infusion (6 h) of t-PA has been found to be a sufficiently effective and safer regimen in the management of PVT as compared with higher dose and fast infusion regimens [3]. The 2017 AHA/ACC Focused Update of the 2014 AHA/ACC Guideline for the Management of Patients with Valvular Heart Disease now recommends urgent initial treatment with either slow-infusion low-dose TT or emergency surgery for obstructive PVT as first-line treatment strategies with class 1B indication [4]. The ultra-slow PROMETEE Trial has demonstrated that ultra-slow (25 h) infusion of low-dose (25 mg) t-PA without bolus appears to be associated with lower non-fatal complications and mortality rates for PVT patients without loss of effectiveness [5].

In conclusion, low fatal and non-fatal complication rates with low-dose and slow/ultra slow infusion TT regimens strengthen the hand of TT against surgery. Clinicians should prefer evidence-based treatments and avoid overuse of regimens beyond the reported safety measures.

Conflict of interest

The authors declare that they have no conflict of interest.

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