Pulse-spray Pharmacomechanical Thrombolysis for Proximal Deep Vein Thrombosis

I read with great interest the article “Yamada N, Ishikura K, Ota S, Tsuji A, Nakamura M, Ito M, Isaka N, Nakano T. Pulse-spray pharmacomechanical thrombolysis for proximal deep vein thrombosis. Eur J Vasc Endovasc Surg 2006 Feb;31(2):204–11” I would like to draw the readers attention to the following:

In the introduction and discussion section the authors note that “only a few case reports have been published” and referred this to the publication “Elsharawy M, Elzayat E. Early results of thrombolysis vs anticoagulation in iliofemoral venous thrombosis. A randomised clinical trial. Eur J Vasc Endovasc Surg 2002 Sep;24(3):209–14”. This study was not a case report and is the first and only randomized controlled study published so far. The study was performed on 35 patients, which were randomised to either catheter directed thrombolysis followed by anticoagulation or to anticoagulation alone. The conclusion of this study was that patients treated with catheter directed thrombolysis obtained better patency and venous competence than those treated with standard anticoagulation.

In the patients and methods section the authors attempted thrombolysis for patients with DVT duration up to 29 days. Before starting my study, all cases in which I attempted thrombolysis with symptoms more than 10 days failed. This is why I excluded any patients with symptoms for more than 10 days from my study. It would be interesting to know how many cases in Yamada et al. experience had symptoms for more than 10 days and how these patients responded to thrombolysis?

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Reply to Correspondence From M.A. Elsharawy re: “Pulse-spray pharmacomechanical Thrombolysis for Proximal Deep Vein Thrombosis”

We thank Dr Elsharawy for his designation of our mistake and his interest concerning our article. As he pointed out, their article is a randomized controlled study which demonstrated the pulse-spray thrombolysis was superior to systemic anticoagulation in not only patency rate in 1 week and 6 months after treatment but also inhibition of venous reflux for acute iliofemoral deep venous thrombosis (DVT).1 We should apologize and correct our mistake.

As demonstrated in Table 1, our study included the patients whose symptom lasted for more than 10 days. 7 cases (23%) had symptoms more than 10 days. The average lytic rate among these 7 cases was 91%. The lytic rate was 94% even in patient whose symptom duration was 29 days. Bjarnason H et al. reported that success rate of catheter-directed thrombolysis for iliofemoral DVT was 86% for patients treated within 1 week, 79% with symptoms for 1–2 weeks, 66% when the symptoms had lasted for 3–4 weeks, and 33% if the symptoms had lasted for more than 4 weeks.2 And they also described that thrombi older than 5 weeks may not be as amenable to thrombolytic therapy as those that were more recent in their article.2 Grossman C et al. reported high success rate of catheter-directed thrombolysis for the acute and subacute DVT (<4 weeks old) in their review article.3 Catheter-directed thrombolysis was successful in 88% (160/181) of the patients with clots less than 4 weeks old compared with 60% (15/25) of the patients with clots more than 4 weeks old.3 It is certain that venous thrombi must organize time-dependently and the age of thrombi correlates with treatment outcome. But the age of thrombi is not always same as the duration of symptoms. If the symptoms appeared by the deterioration of venous