

on bedside or as a day-care procedure. **Methods:** From January 2018 to October 2019, we performed 100 cases of percutaneous needle-directed thrombolysis. Under ultrasonographic (USG) guidance, multiple 26G needles were placed in the thrombosed vein or graft. Cocktail of 5 lakh IU of urokinase and heparin was prepared. Manual injections of 0.2–0.3 ml aliquots of thrombolytic solution were applied to each needle about every 30 s with a 2 ml syringe. **Results:** 86 of the thrombosed dialysis fistula/graft were recanalized within 24 h of the procedure and 14 required the second attempt within 48 h. Technical success was found in all thrombosed fistula/graft; however, technical difficulties were more in radiocephalic fistula due to tortuous course of the vessel and lack of good soft tissue window. **Conclusion:** USG-guided needle directed pulse-spray pharmacomechanical technique is a minimally invasive technique. There is no radiation involved in the procedure, and it effectively reduces the cost of the procedure. Our results showed a high procedural success rate, good patency rate, and no major complications.

## OR2.11

### Catheter-Directed Thrombolysis for Acute Iliofemoral Deep Vein Thrombosis: Predictors of Outcome

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**Objectives:** Catheter-directed thrombolysis (CDT) in properly selected cases can result in curing acute symptoms of deep vein thrombosis (DVT) as well as reducing the incidence and severity of postthrombotic syndrome (PTS). The ACCP guidelines 2016 proposed that patients most likely to benefit from CDT are those with iliofemoral DVT (IFDVT), preferably first episode, symptoms less than 14 days, life expectancy more than 1 year, and low risk of bleeding. Other factors influencing the outcome can be the thrombus load and extent, as well as the anatomic location of the thrombotic process. The current study aims at identifying patients who will have a favorable outcome following CDT for acute IFDVT so as to detect predictors of outcome after such intervention. **Methods:** In a prospective, observational cohort study, patients presenting to Ain Shams University Hospitals over 2 years from January 2016 to October 2017 suffering from symptoms of acute IFDVT and fulfilling the inclusion criteria were recruited. Twenty patients were recruited, aged 19–64 years; 11 patients were women, and the rest were men. Demographic and medical data were gathered. All patients had duplex scanning of the deep venous system of the affected limb(s) to appreciate the extent of thrombosis and to assess the access site. Regular laboratory investigations were done, including full blood count, kidney function tests, liver function tests, and coagulation profile. Patients were administered therapeutic dose low molecular weight heparin (LMWH) on admission. The procedure was performed in an operating room or interventional suite; the patients were monitored in the intensive care unit (ICU). Ultrasound-guided popliteal or short saphenous vein access was used (prone position). Ascending venography was then performed through the sheath to determine the extent of the thrombus. A multiple side-hole infusion catheter was positioned in the iliofemoral segment. An initial bolus (10–15 mg) of recombinant tissue plasminogen activator (rtPA/alteplase) given via pulse-spray technique. The

patient was then transferred to the ICU and continuous infusion for 24 h with rate 1.5–2 mg/h was initiated. Total dose of rtPA was 50 mg/24 h. Further ascending venography was performed at completion of procedure then at 24 h and in three cases at further 36 (1) and 48 h (2), respectively. Assessment of immediate procedural failure was based on the degree of lysis (>50% or < 50%) and 30-day recurrence of DVT. Occurrence of PTS at 6 months was based on the Villalta score. **Results:** Twenty patients were recruited, the mean age was 46.3 years, 11 patients were women, and the rest were men. Endpoints were clearance of the thrombus load in the iliac segment, evident improvement of symptoms and signs, lysis at 48 h, total failure of lysis after the first 24 h, hemorrhage-threatening general condition of the patient, and occurrence of pulmonary embolism. All of our patients had thrombus lysis >50%. We did not find significant difference between patients presenting <7 days or 7–14 days as regards the final lysis grade or severity of PTS after 6 months. Six months postintervention, seven patients were free of PTS, 15 patients had mild-to-moderate PTS, and no correlation was found between the lysis grade and Villalta score at 6 months. No patients had severe PTS. Access through the short saphenous vein had lower rate of clinically relevant nonmajor bleeding. No recurrent venous thromboembolism, postlysis PE, or deaths occurred in our study. We found no significant association between predisposing risk factors (e.g., demographic and medical conditions) and the degree of lysis or severity of PTS. Access via the short saphenous vein had less bleeding complications than popliteal vein in our series. **Conclusion:** In our study, determinants of outcome following CDT for acute IFDVT were (1) dose of thrombolytic agent used, (2) duration of thrombolysis, and (3) thrombus score at the end of the procedure. There is an obvious need for further studies addressing larger number of patients and longer follow-up to identify further determinants of outcome with respect to both acute results and long-term PTS occurrence rates.

## OR2.12

### Postthrombotic Syndrome in Acute Iliofemoral Deep Vein Thrombosis

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**Objectives:** Postthrombotic syndrome (PTS) due to chronic venous insufficiency has been shown to affect many patients with a history of proximal iliofemoral deep vein thrombosis (IF-DVT). The current treatment options include catheter-directed thrombolysis (CDT), recommended by the National Institute of Clinical Excellence, and/or alternatively percutaneous mechanical thrombectomy (PMT) to reduce the incidence of PTS and associated potential poor quality of life (QoL). We set out to identify the rate and severity of PTS and explore the QoL among IF-DVT patients treated with PMT. **Methods:** A retrospective review of IF-DVT patients treated with PMT was undertaken in a single tertiary center between January 2012 and 2017. The rate of PTS and QoL posttreatment was evaluated (follow-up range: 12–70 months, mean 32.3 months). Patients were invited to complete follow-up questionnaires (Villalta score and VEINES QoL/Sym). **Results:** Of 115 patients with IF-DVT, 42 were excluded (deceased, no intervention done, or only had CDT). 30