To investigate the incidence of peripherally inserted central catheter–related deep venous thrombosis (PRDVT) and their associated risk factors of PRDVT in the oncological patients who received peripherally inserted central catheters” Jianning et al (2018).

Abstract:

Objective: To investigate the incidence of peripherally inserted central catheter–related deep venous thrombosis (PRDVT) and their associated risk factors of PRDVT in the oncological patients who received peripherally inserted central catheters.

Methods: This is a prospective and interventional cohort study; enrolled cancer patients had ultrasound-guided peripherally inserted central catheters and followed up by an intensive ultrasound monitoring protocol for 24 weeks. Vascular color Doppler ultrasound was applied to the prospective evaluation of thrombus every 2 weeks for each patient.

Results: Of all 406 patients (37,490 catheter days), 30.05% of patients (122/406) developed peripherally inserted central catheter–related deep vein thrombosis, with an incidence of 3.25 per 1000 catheter days. Only 1.23% (5/406) peripherally inserted central catheters were removed because of central line associated blood stream infection or accident. The incidence of asymptomatic PRDVT and symptomatic PRDVT were 26.85% (109/406) and 3.2% (13/406) respectively.

Conclusion: The incidence of PRDVT in our hospital was considerable to the published data. Catheter in right upper extremity, tip at subclavian or T 2-4, more than 1 attempt for peripherally inserted central catheter insertion, and radiotherapy were independent predictors of PRDVT in cancer patients. Proactive ultrasound monitoring protocol from insertion to follow-up visits to investigate the incidence of PRDVT in oncological patients should be a routine examination.

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