



“We aimed to study PTS post-CVC removal using physical, functional and health related quality of life (HRQoL) domains in childhood cancer and bone marrow transplantation (BMT) survivors.” Polen et al (2014)

Reference:

Polen. E., Weintraub, M., Stoffer, C., Jaffe, D.H., Burger, A. and Revel-Vilk, S. (2014) Post-thrombotic syndrome after central venous catheter removal in childhood cancer survivors: A prospective cohort study. *Pediatric Blood & Cancer*. October 30th. .

Post-thrombotic syndrome after central venous catheter removal [@ivteam #ivteam](http://ctt.ec/u865e+)

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Abstract:

Background: Although the use of central venous catheters (CVCs) has greatly improved the quality of care of children with cancer, these catheters increase the risk of deep vein thrombosis (DVT) and the potential long-term complication of post-thrombotic syndrome (PTS). We aimed to study PTS post-CVC removal using physical, functional and health related quality of life (HRQoL) domains in childhood cancer and bone marrow transplantation (BMT) survivors.

Procedure: We conducted a prospective study in a cohort of childhood cancer and BMT survivors post-CVC use. Participants were evaluated for PTS with the Modified Villalta Score (MVS) and the Manco-Johnson Instrument (MJI). HRQoL was assessed using the PedsQL™ questionnaire.

Results: A total of 158 children were enrolled at a median of 41 (4-149) months from CVC removal. Signs and symptoms of PTS were present in 34% (95% confidence interval [CI] 27-43%) (MVS criteria) and 30.5% (95% CI 23.1-37.8%) (MJI criteria). Diagnosis of PTS was associated with history of CVC occlusion, history of CVC-related DVT and the use of ≥ 2 CVCs. The presence of signs and symptoms of PTS was a predictor for low HRQoL tested by the PedsQL™ Total Scale scores and Physical Health Summary scores.

Conclusions: PTS post-CVC removal in pediatric cancer survivors is not a rare event. The association between PTS and the history of CVC occlusion confirms earlier findings, and suggests that CVC occlusion may indicate asymptomatic DVT. PTS is also associated with lower HRQoL scores highlighting the need to study preventive measures, especially for high risk groups.

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