We sought to evaluate whether among children with central venous catheter, thrombophilia increases the risk of CADVT” Neshat-Vahid et al (2016).

Abstract:

BACKGROUND: The association between thrombophilia and deep venous thrombosis associated with central venous catheter (CADVT), the most important pediatric risk factor for thrombosis, is unclear in children. Pediatric studies with small sample sizes report conflicting results. We sought to evaluate whether among children with central venous catheter, thrombophilia increases the risk of CADVT.

RESULTS: We analyzed 16 cohort studies with 1,279 children, 277 of whom had CADVT, and with 12 traits tested. There was significant heterogeneity in the included studies. Presence of ≥1 trait was associated with CADVT (pOR: 3.20; 95% confidence interval : 1.56-6.54). Although the prevalence of most traits was <0.10, children with protein C deficiency, elevated factor VIII and factor V Leiden mutation had increased prevalence of CADVT. The association with thrombophilia seems stronger with symptomatic (pOR: 6.71; 95% CI: 1.93-23.37) than asymptomatic CADVT (pOR: 2.14; 95% CI: 1.10-4.18).

CONCLUSIONS: Based on the low prevalence of specific traits, relatively weak association with CADVT, and limitations of included studies, we cannot recommend routine testing of thrombophilias in children with CADVT.

Reference:

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Thank you to our partners for supporting IVTEAM