Abstract:

PURPOSE: To determine the incidence of catheter-associated venous thromboembolic events (VTE) in long gap esophageal atresia (LGEA) patients treated at Boston Children's Hospital (BCH) and to identify possible risk factors associated with their development.

METHODS: We performed a retrospective analysis of LGEA patients from 2005 to 2012. Symptomatic VTEs with radiographic confirmation were defined as events. Potential risk factors were assessed by univariate analysis and multivariate logistic regression. Covariates included age, weight, initial gap length, cumulative days of pharmacologic paralysis and paralytic episodes, number and type of central venous catheters (CVCs), and number of operations.

RESULTS: Forty-four LGEA patients were identified. The incidence of CVC associated VTE was 34%. Univariate analysis identified age at Foker 1 (P=.03), paralysis duration (P=.01), episodes of paralysis (P=.001), cumulative number of CVC (P=.007) and length of stay (P=.03) as significant. Multivariate logistic regression identified the number of paralytic episodes as the only significant independent risk factor for VTE (P<.0001).
CONCLUSIONS: The incidence of symptomatic VTE was 34%, significantly higher than the VTE incidence of 4.5% reported for our other hospitalized children. These data have led to multidisciplinary discussions regarding thromboprophylaxis and development of a consensus-driven protocol. Since the initiation of this protocol, no VTEs have been identified.

Other intravenous and vascular access resources that may be of interest (External links - IVTEAM has no responsibility for content).