

# **PREVALENCE AND RISK FACTORS FOR POST THROMBOTIC SYNDROME AFTER DEEP VEIN THROMBOSIS IN CHILDREN: A COHORT STUDY.**

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## **Abstract**

### **BACKGROUND:**

While post thrombotic syndrome (PTS) is increasingly recognized as a frequent and potentially serious complication of deep vein thrombosis (DVT) in children, limited information is available regarding predictors of PTS.

### **METHODS:**

Using the Mayo Clinic Master Diagnostic Index, all pediatric patients (age 0 to 18 years) with a potential DVT based on ICD-8 codes over the 15-year period, 1995 to 2009 were identified. A validated PTS survey instrument was mailed to eligible patients followed by a second mailing and three reminder phone calls for non-responders. Baseline clinical and radiographic characteristics were abstracted from patient medical records and tested as potential predictors of PTS using logistic regression. Associations were summarized by calculating odds ratios (OR) and corresponding 95% confidence intervals.

### **RESULTS:**

Ninety patients agreed to participate. The mean age ( $\pm$ SD) at DVT diagnosis and survey completion were 12.8 ( $\pm$ 6.1) and 19.3 ( $\pm$ 7.7) years, respectively. Fifty three respondents (59%) reported mild PTS whereas 12 (13%) reported moderate-to-severe PTS. Pain (34%) and dilated blood vessels (40%) were the most frequent PTS symptom and sign, respectively. On multivariate analysis, predictors of PTS included duration between incident DVT and survey completion (OR 1.75; 95% CI: 1.08-2.84) and number of thrombosed vein segments (OR 1.40; 95% CI: 1.05-1.86).

### **CONCLUSION:**

Over 70% of children with DVT report subsequent symptoms or signs of PTS, though only 13% report clinically significant, moderate-to-severe PTS. Number of thrombosed vein segments at diagnosis and time duration between incident DVT and survey completion were independent predictors of PTS.

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### **KEYWORDS:**

Deep vein thrombosis; Post thrombotic syndrome

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