
Reference:

ReTweet if useful... Transhepatic central venous access catheters in pediatric patients http://ctt.ec/6Jm7t+ @ivteam #ivteam

Click To Tweet

Abstract:

OBJECTIVES: Patients with congenital heart disease may have limited venous access routes as a result of multiple central venous catheters, surgical interventions, and catheterization procedures. Unconventional venous access includes transhepatic central venous catheter. We evaluated transhepatic central venous catheter placed in patients with congenital heart disease and risk factors associated with complications and outcomes.

DESIGN: Demographic, procedural, and complication data were retrospectively collected on all patients who underwent transhepatic central venous catheter placement at our center over the past 10 years.

SETTING: This study was completed in a tertiary congenital heart center.

PATIENTS: A total of 92 transhepatic central venous catheters were placed in 54 patients (63% male patients). The median age and weight of the patient population was 5.7 months and 5.5 kg, respectively.

INTERVENTIONS: Placement of a transhepatic central venous catheter.

MEASUREMENTS AND MAIN RESULTS: Successful catheter placement occurred in 96% of cases with median procedure time of 54 minutes with a procedural complication rate of 14%. A total of 86 complications occurred in 54 catheters placed during 2,166 catheter-days (39.7 complications per 1,000 catheter-days). Individual complication rates per 1,000 catheter-days included catheter dysfunction (14.8), dislodgement (8.8), systemic infection
(5.1), thrombosis (4.2), local infection (3.7), and bleeding (3.2). Two complications contributed to patient deaths. Factors associated with developing complications included polyurethane central venous catheters ($p = 0.03$) and catheter duration at least 21 days ($p = 0.004$). The overall mortality in this population was 50% with median length of hospitalization of 49 days (interquartile range, 33-97).

CONCLUSIONS: Transhepatic central venous catheters represent a viable option for patients with limited access. Polyurethane catheters and catheter duration at least 21 days are associated with increased transhepatic central venous catheter complications. Although complication rates are higher than more traditional forms of central venous catheters, the long duration of hospitalization and high mortality rates in this patient population attest to their risks for poor outcomes irrespective of venous access.

Thank you to our partners for supporting IVTEAM