The aim of this interventional study was to assess the impact of a new strategy using taurolidine-citrate (T-C) prophylactic locks on the CRBSI rate in children with intestinal failure who are receiving HPN (Lambe et al, 2018).

Abstract

BACKGROUND: Catheter-related bloodstream infections (CRBSIs) remain a major issue in patients who are receiving home parenteral nutrition (HPN). The aim of this interventional study was to assess the impact of a new strategy using taurolidine-citrate (T-C) prophylactic locks on the CRBSI rate in children with intestinal failure who are receiving HPN.

METHODS: The rate of CRBSIs was monitored every calendar year in a prospective cohort of 195 children with intestinal failure. T-C locks were initiated from October 2011 in children with recurring CRBSIs (≥ 2 episodes per year).

RESULTS: In the whole cohort, the median annual CRBSI rate per 1000 catheter days decreased significantly from 2.07 in 2008 to 2010 to 1.23 in 2012 to 2014 (P < .05). T-C locks were used in 40 patients. No adverse events were reported. In taurolidine-treated patients, the CRBSI rate per 1000 catheter days decreased from 4.16 to 0.25 (P < .0001). The cumulative percentage of patients free of CRBSI at 18 months was 92% (95% confidence interval: 71-98) on T-C lock vs 61% (95% CI: 49-72) in controls (P = .01). In multivariate analysis, factors associated with CRBSI were immune deficiency (adjusted hazard ratio 3.49; 95% CI: 1.01-12.17) and the young age of the parents (adjusted hazard ratio 4.79, 95% CI: 2.16-10.62), whereas T-C locks were protective (adjusted hazard ratio 0.22, 95% CI: 0.06-0.74).

CONCLUSION: This study confirms the efficacy of T-C catheter locks in decreasing the incidence of CRBSIs in children with intestinal failure who are receiving HPN.
Reference:


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