



“To evaluate whether intravenous lipid (IL) intake is associated with the development of parenteral nutrition-associated cholestasis (PNAC) in infants younger than 32 weeks gestational age (GA).” Gupta et al (2014).

Reference:

Gupta, K., Wang, H. and Amin, S.B. (2014) Parenteral Nutrition-Associated Cholestasis in Premature Infants. Journal of Parenteral & Enteral Nutrition. October 13th. .

Parenteral nutrition-associated cholestasis in premature infants [@ivteam #ivteam](http://ctt.ec/M4u6h+)

Click To Tweet

Abstract:

Purpose: To evaluate whether intravenous lipid (IL) intake is associated with the development of parenteral nutrition-associated cholestasis (PNAC) in infants younger than 32 weeks gestational age (GA).

Methods: A retrospective matched case-control study (1:1) was performed including infants younger than 32 weeks GA admitted to the neonatal intensive care unit within 48 hours after birth. Infants with a chromosomal disorder, TORCH infection (toxoplasmosis, syphilis, rubella, cytomegalovirus, herpes, human immunodeficiency virus, and parvovirus), metabolic

disorder, and/or surgical abnormality of the hepatobiliary system were excluded. Infants with PNAC (direct bilirubin 2 mg/dL or higher) comprised the case group, while infants without PNAC comprised the control group. Duration of parenteral nutrition, intravenous fluid intake on the day of development of PNAC, and GA were used as matching criteria.

Results: A total of 46 subjects were studied. Daily average intravenous dextrose (ID) intake was significantly higher in infants with PNAC compared with infants without PNAC (12.72 ± 2.5 g/kg/d and 10.64 ± 2.1 g/kg/d, respectively, $P = .004$). On comparison of receiver operating characteristic curves, the area under the curve for ID intake (0.74) was significantly higher ($P = .01$) compared with the area under the curve for IL intake (0.59) and intravenous protein (IP) intake (0.52). On logistic regression, daily ID intake was associated with PNAC (odds ratio 1.7; 95% CI, 1.04–2.9, $P = .03$) after controlling for daily IP and IL intake.

Conclusions: ID intake may be associated with the development of PNAC in premature infants. Our findings suggest that limiting ID intake may be more useful than limiting IL intake in reducing the incidence of PNAC in premature infants.

Thank you to our partners for supporting IVTEAM

