Pulmonary embolism (PE) is a complication of parenteral nutrition (PN) with a prevalence of 35% in children” Pichler et al (2016).

Abstract:

BACKGROUND & AIMS: Pulmonary embolism (PE) is a complication of parenteral nutrition (PN) with a prevalence of 35% in children. In 2003 new intravenous lipid emulsions (ILEs) with MCT, olive and/or fish oil in addition to soybean oil were introduced. The aim was to compare the incidence of PE before and after introduction.

METHODS: 327 surveillance ventilation-perfusion (V/Q) scintigraphies from 68 children aged 0.3-15 years, treated with PN from 1993 to 2010, were retrospectively reviewed. Rate of PE/1000 central venous catheter (CVC) days, number of children with PE pre- and post-introduction of ILEs were compared. Multivariate analyses were performed for risk factors.

RESULTS: Twenty-two (32%) children (19/42 before 2003 and 3/26 after 2003, p = 0.007) had at least one episode of PE. Thirty seven (11%) episodes of PE were detected accounting for a mean of 0.2/1000 CVC days prior to 2003 and 0.05/1000 CVC days after 2003, p = 0.04. Regression analysis indicated that higher content of ILE/infusion (p = 0.045) and frequency of
ILE of >3 nights/week were associated with more PE (p = 0.001). New ILEs were associated with lower risk (p = 0.003).

CONCLUSION: With a four-fold fall in incidence with new ILE, PE remains a complication. We recommend 12-18 monthly surveillance with lung perfusion scan and anticoagulants if PE is diagnosed.

Reference:


Thank you to our partners for supporting IVTEAM