

The authors report a rare complication of vascular access in a preterm infant, which led to the direct infusion of parenteral nutrition into the intracranial space” Ahmadian et al (2015).

Reference:

Ahmadian, A., Manwaring, J., Truong, D., McCarthy, J., Rodriguez, L.F., Carey, C.M. and Tuite, G.F. (2015) Accidental intracranial infusion of parenteral nutrition in a preterm neonate. Journal of Neurosurgery. July 17th. .

Abstract:

Vascular access in the neonate can be challenging, especially in preterm infants. When other access is not available, superficial scalp veins can be safely used for vascular access. However, rare and potentially catastrophic complications can occur due to unique features of the neonatal skull and soft-tissue anatomy. The authors report a rare complication of vascular access in a preterm infant, which led to the direct infusion of parenteral nutrition into the intracranial space. The child had an excellent outcome after open drainage and irrigation of bilateral intracranial spaces and the spinal thecal sac. Relevant anatomy is illustrated, and an outcome-based literature review is presented on this rarely reported condition. Surgical and conservative management strategies are discussed, along with clinical and radiographic follow-up. Drainage and irrigation is advocated in patients with mass effect, viscous effusions, or declining neurological examination findings.

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