Hypertonic saline (HTS) is often used to manage cerebral edema and increased intracranial pressure (ICP) in children via creation of an osmolar gradient which promotes decreases in brain interstitial volume along the blood-brain barrier” Niknam et al (2018).

Abstract:

Hypertonic saline (HTS) is often used to manage cerebral edema and increased intracranial pressure (ICP) in children via creation of an osmolar gradient which promotes decreases in brain interstitial volume along the blood-brain barrier [1]. It also acts as a plasma volume expander. There is scant evidence directing administration in children [2,3,4] resulting in variation in emergency physician practices [5,6]. HTS exhibits low rates of adverse effects, even with the use of intravenous (IV) concentrations through 23.4% [7-9], IV bolus doses up to 24 ml per kilogram (ml/kg) [10], or with administration over 3 min [11-13].

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