This narrative review appraises recent clinical studies of fluid therapy in patients with traumatic brain injury (TBI), with respect to its use in volume resuscitation and prevention of secondary injury.” Gantner et al (2014).

Reference:


Review of intravenous fluids in traumatic brain injury http://ctt.ec/94ZEr+ @ivteam #ivteam

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Abstract:

PURPOSE OF REVIEW: Intravenous fluid is a fundamental component of trauma care and fluid management influences patient outcomes. This narrative review appraises recent clinical studies of fluid therapy in patients with traumatic brain injury (TBI), with respect to its use in volume resuscitation and prevention of secondary injury.

RECENT FINDINGS: Despite the development of level 1 evidence in fluid resuscitation, in patients with TBI key questions concerning optimal composition and volume remain unanswered. In the absence of randomized trials demonstrating patient outcome differences, clinical practice is often based on physiological principles and surrogate endpoints. There is a physiological rationale why excessive fluid administration and positive fluid balance may increase brain swelling and intracranial pressure (ICP); in some patients, a lower cumulative fluid balance may improve outcomes, but limited human data exist. Resuscitation with 4% albumin in TBI patients in ICU worsens mortality, which may be mediated by increased ICP during the first week after injury. Hypertonic saline and mannitol decrease ICP, but may not improve survival or neurological outcomes. Sodium lactate may be a future therapy for treatment and prevention of secondary brain injury.

SUMMARY: In patients with TBI, intravenous fluids are integral to management; they may be both a source of harm and a potential therapy to limit secondary brain injury. They should be prescribed in accordance with other pharmaceutical or therapeutic interventions. Refined
usage may improve patient outcomes.

Other intravenous and vascular access resources that may be of interest (External links – IVTEAM has no responsibility for content).