## CLIPPINGS

## Randomized clinical trial of 20% mannitol versus 3% hypertonic saline in children with raised intracranial pressure due to acute CNS infections (*Pediatr Crit Care Med. 2020;21:1071-80*)

Mannitol is a commonly used osmotherapy agent in raised intracranial pressure but it has significant side effects. Hypertonic 3% saline shows varied results in traumatic brain injury as compared to 20% mannitol. This is an open label randomized controlled trial conducted on 1-12 years of children admitted to PICU with raised intracranial pressure and modified-Glasgow Coma Scale scores less than or equal to 8 to compare the effect of 3% hypertonic saline versus 20% mannitol on raised intracranial pressure in pediatric acute CNS infections. Fifty seven children were randomly assigned to 20% mannitol (n=28), 0.5 g/kg/dose versus 3% hypertonic saline (n=29), 10 mL/kg loading followed by 0.5-1 mL/kg/h infusion. An intra-parenchymal catheter was used to monitor the intracranial pressure. In children with CNS infection, raised ICP was significantly better controlled in 3% hypertonic saline group. Hypertonic saline group also had a significantly better fall in intracranial pressure, a rise in cerebral perfusion pressure, and this trend persisted over 72 hours. Since, this is a single-center open-label design, and blinding was not possible because of the nature of the study and also cerebral hemodynamics and metabolism could not be studied. Therefore, a multi-centric trial for an evidencebased recommendation of 3% hypertonic saline is suggested.

## U Efficacy of adjunctive zinc in improving the treatment outcomes in hospitalized children with pneumonia: A randomized controlled trial (*J Trop Pediatr. 2020; 66:419-27*)

Pneumonia is still one of the largest contributors to under-five mortality in developing country like ours. Zinc is used by health

professionals as an adjunct treatment in children with pneumonia. This is a randomized, double blind placebo controlled trial conducted on hospitalized children with pneumonia with the aim to assess the efficacy of adjunctive zinc supplementation on the treatment outcomes of pneumonia. Ninety one children (2-6 months) were randomly received either zinc bis-glycinate (15 mg elemental zinc) or placebo, twice daily. The time to resolution of clinical pneumonia was significantly shorter in the zinc group than the placebo, and the hospitalization period as well as time to resolution of fever were significantly shorter in the zinc group. Due to small number of enrolled participants, the generalizability of the study on a global scale might be affected. Therefore, larger randomized trials are recommended for future investigations, as well as various variables that may influence the outcomes should be considered in future trials.

## Skin manifestations of COVID-19 in children: Part 1, Part 2, Part 3. (*Clin Exp Dermatol. 2021;46:444-72*)

The current COVID-19 pandemic is caused by SARS-CoV-2. The initial recognized symptoms were respiratory, sometimes culminating in severe respiratory distress requiring ventilation, as time has passed, other symptoms have also been recognized. The initial reports of cutaneous manifestations were from Italian dermatologists, probably because Italy was the first European country to be heavily affected by the pandemic. The overall clinical presentation, course and outcome of SARS-CoV-2 infection in children differ from those in adults as do the cutaneous manifestations of childhood. In this extensive review, divided into three parts, the current knowledge on the cutaneous manifestations of COVID-19 in children are summarized after thorough and critical review of articles published in the literature and from the personal experience of a large panel of paediatric dermatologists in Europe. In Part 1, first and most widespread cutaneous manifestation of COVID-19, chilblain-like lesions are discussed. In Part 2, other cutaneous manifestations are reviewed, including erythema multiforme, urticaria and Kawasaki diseaselike inflammatory multisystemic syndrome; while in Part 3, the histological findings of COVID-19 manifestations are discussed, and the testing and management of infected children, for both COVID-19 and any other pre-existing conditions.

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