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50 Years Ago in *The Journal of Pediatrics*

Oral rehydration solution in children with cholera: proof of an important concept for child health

Nalin DR, Cash RA. Oral or nasogastric maintenance therapy in pediatric cholera patients. J Pediatr 1971;78:355-8.

After pioneering trials in adults,[1] Nalin and Cash reported on the use of oral rehydration solutions (ORS) in children with cholera. These children, from what is now Dhaka, Bangladesh, were dehydrated and losing water and electrolytes at a ferocious rate (~9 mL/kg/hour). After a 6-hour stabilization period with intravenous (IV) fluids, the children were then switched to oral or nasogastric ORS, titrated in amounts to match losses through diarrhea or vomitus. Eight of 12 children required no further IV fluids, and positive water-electrolyte balance was observed in all.

This understated but revolutionary proof of concept trial showed that "…pediatric cholera patients absorb the solution of glucose and electrolytes from their intestinal tracts in sufficient quantity to maintain positive fluid and electrolyte balance." The report led to the application of ORS in much more prevalent diarrheal diseases, including those caused by other bacteria and viruses. Many trials have shown ORS to be equivalent if not superior to IV fluids, including studies of children in the US.[2]

What are the other lessons 50 years on? ORS may be an important adjunct therapy for Ebola virus and Coronavirus disease 2019 infections,[3] and ORS use in the setting of IV shortage is not limited to resource-poor countries.[4] The development of oral rehydration therapy stands as a role model for science, highlighting the critical importance of support for research, field work, innovation, and global collaboration.[5]

Christopher P. Duggan, MD, MPH
Boston Children's Hospital and Harvard T.H. Chan School of Public Health
Boston, Massachusetts

Richard A. Cash, MD, MPH
Harvard T.H. Chan School of Public Health
Boston, Massachusetts

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