



ISSN: 2644-2981

Global Journal of
Nutrition & Food Science

DOI: 10.33552/GJNFS.2019.01.000520

Iris Publishers

Perspective

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Beetroot Based ORS for Treatment of Cholera

Chandrika Murugaiah^{1*}, Jasvinder Kaur², Hassanain Al-Talib³, Mehru Nisha⁴ and Atif Amin Baig⁵

¹Faculty of Medicine and Health Sciences, University Malaysia Sabah, Malaysia

²Department of Paediatrics, National University of Malaysia (UKM) Medical Centre, Malaysia

³Laboratory Medical Science Cluster, Faculty of Medicine, University Teknologi MARA (UiTM), Malaysia

⁴Clinical Laboratory Science Section, University Kuala Lumpur, Malaysia

⁵Faculty of Medicine, University Sultan Zainal Abidin (Uni SZA), Malaysia

***Corresponding author:** Chandrika Murugaiah, Faculty of Medicine and Health Sciences, University Malaysia Sabah, Malaysia.

Received Date: April 25, 2019

Published Date: May 02, 2019

Perspective

Cholera, caused by the bacteria *Vibrio cholerae*, can be life-threatening but it is easily prevented and treated. It is caused by eating food or drinking water contaminated with *Vibrio cholerae*. *V. cholerae* was first isolated by Italian anatomist Filippo Pacini in 1854. Later Robert Koch publicized the knowledge of cholera. The bacterium's natural habitat is brackish or saltwater, and globally, cholera cases have increased steadily since 2005.

Vaccination and good hygiene are mainstay of cholera prevention. Treatment of cholera consist of oral or intravenous solutions to replace lost fluids. Antibiotics are not part of emergency treatment for mild cases; however, they can reduce the duration of diarrhea by half and also reduce the excretion of the bacteria, thus helping to prevent the spread of the disease.

Oral Rehydration Salts (ORS) consists of a balanced glucose-electrolyte mixture recommended and distributed by UNICEF and WHO as treatment of clinical dehydration throughout the world. ORS is a method of fluid replacement which involves drinking water with modest amounts of sugar and salts, specifically sodium and potassium.

Food-based oral rehydration solution shown to be better than glucose-ORS as treatment of diarrhoea in children in rural Bangladesh. Here we are suggesting beetroot-based ORS as cholera treatment. Beetroot is of exceptional nutritional value. It is varieties of *Beta vulgaris* grown for their edible taproots and leaves (called beet greens). The greens of beetroot, which are rich in calcium, iron and vitamins A and C. Beetroots are an excellent source of fiber, and folic acid, manganese and potassium. The greens should not be overlooked. The beetroot is eaten boiled, roasted, or raw.

Raw beetroot is 89% water, 11% carbohydrates, 3% protein, and less than 2% fat. In every 200-gram amount providing 86 calories, raw beetroot is a rich source of folate and a moderate source of manganese, with other nutrients having insignificant content. Beetroot based ORS can be prepared by cooking it with added salt combined with ORS.

Conflict of Interest

No conflict of interest.

Acknowledgement

None.



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