



A CASE STUDY OF MANAGING DIARRHOEA IN CHILDREN BY NUTRITIONAL THERAPY

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Managing Diarrhea in Children Role of Nutritional Therapy

Among children worldwide diarrheal disease particularly acute gastroenteritis, still remain leading cause of morbidity and mortality, even though a substantial portion of decrease in mortality has been achieved which is attributable to worldwide campaigns to treat acute diarrhea with oral rehydration therapy (ORT), which today includes rehydration and maintenance fluids apart from oral rehydration solutions (ORS) combined with continued age appropriate nutrition. Although substantial in vitro and in vivo data support the role of continued nutrition in improving gastro intestinal function and anthropometric, biochemical and clinical outcome early appropriate feeding is often withheld.

Principles of Appropriate Treatment for children with Diarrhea and Dehydration

- i] Oral rehydration solutions (ORS) should be used for rehydration.
- ii] Oral rehydration should be performed rapidly (i.e. within 3-4 hrs.)
- iii] For rapid realimentation an age appropriate unrestricted diet is recommended as soon as dehydration is corrected.
- iv] For breastfed infants, nursing should be continued.
- v] If formula Fed-diluted formula is not recommended and special formula usually is not necessary.
- vi] Additional ORS should be administered for ongoing losses through diarrhea.
- vii] No unnecessary laboratory tests or medication should be administered.

Emerging Concept of Dietary Therapy

Main nutrition seen in diarrheal children. Since malnutrition makes patient more susceptible to infection, it can lead to the creation of vicious cycle of infection, diarrhea and malnutrition.

Dietary Recommendations

Recommendation for maintenance dietary therapy depend on age and dietary history of the patient, and regardless of fluid used, an age appropriate diet should be given in infants should be offered more frequent breast or bottle feedings and older children should be given more fluids. In infants breast feeding should be continued at all times, even during the initial rehydration phases. The diet should be increased as soon as tolerated to compensate for lost caloric intake during acute illness formula fed infants should continue their usual formula immediately upon rehydration in amounts sufficient to satisfy energy and nutrient requirements.

Solid Foods

Children receiving semi solid or solid food should continue to receive their usual diet during episodes of diarrhea foods high in simple sugars should be avoided because the osmotic load might worsen diarrhea therefore, substantial amounts of carbonated soft drinks, juice, gelatin desserts and other highly sugared liquids should be avoided.

Fatty Foods

Certain guidelines have recommended avoiding fatty foods, but maintaining adequate calories without fat is difficult and fat might have a beneficial effect on reducing intestinal mortality. The practice of withholding food for 72 hours is inappropriate. Early feeding decreases changes in intestinal permeability caused by infection, reduces illness duration and improves nutritional outcomes.

Indian Scenario

Children in India often have multiple episodes of diarrhea in single season especially peak summers. Children should, as best as possible maintain caloric intake during acute episodes, and should subsequently receive additional nutrition to compensate for any shortfalls arising during the illness. Role of food supplements / surplus available commercially have a very vital role to play as they help to replenish various Vitamins, Minerals in addition to carbohydrates and proteins combined in one preparation.

CONCLUSION

Treatment of acute diarrhea has relied for long upon simple and effective therapy of oral rehydration. More recent advances in science of diarrhea treatment include recognition for the role of zinc supplementation in reducing disease severity and occurrence and other dietary supplements of vitamins and minerals apart from proteins and carbohydrates. The combination of oral rehydration and early nutritional support promises to safely and effectively assist a patient through an episode of diarrhea.

SUGGESTED READING

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