

Summary & Conclusion

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Hypernatremic dehydration is the most serious type of dehydration as it is a well recognized cause of permanent brain damage (Clarke et al., 1979).

Many clinical studies that were carried out in both industrialized and less developed countries have established the efficacy and advantages of oral rehydration therapy (ORT) in infants with diarrheal dehydration. The most popular oral rehydration solution which is recommended by the World Health Organization (WHO) contains sodium at a concentration of 90 mEq/L. Its use in Egypt resulted in dramatic declining in the infant mortality rate.

Some pediatricians, however; have expressed concern that this sodium concentration is potentially unsafe and would lead to an exacerbation of hypernatremia.

In our study, the incidence of hypernatremic dehydration, the role of ORS-90 in its production and various factors that may contribute to hypernatremia were studied, This study revealed the following:

- The incidence of hypernatremic dehydration was 12.7%.
- A positive correlation between ORS-90 intake and incidence of hypernatremia.

- A negative correlation existed between the incidence of hypernatremia and that of malnutrition.
- Also, it was found that hypernatremic dehydration was more common among younger infants as well as in cases presented with vomiting and/or fever, also in artificially fed infants.

According to the results of our study we can recommend the following points aiming to reduce the incidence of hypernatremic dehydration:

- (1) Proper use of ORS.
- (2) Encouragement of breast feeding which is considered a prophylactic measure against diarrhea and hypernatremic dehydration.
- (3) Minimizing extrafluid loss of diarrhea by:
 - (i) Early control of vomiting and proper use of ORS.
 - (ii) Proper control of fever, chest infection or acidosis if they are present as they increase insensible water loss.