

## Title: Assessment of the Degree and Types of Dehydration in Libyan Children Suffering from Acute Diarrheal Diseases in Gharyan City

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### Biography

Dr. Aisha has been Graduated from Tripoli University in January 1981 as Medical Doctor (MBBCh), with the specialties and Diploma in pediatric (DCH) from the same University but



the course and the exam. For diploma was done by Glasgow University teaching staff. Later I obtained post-graduation from Alexandria University; I got Master degree in pediatric gastroenterology and Doctor of pediatrics (MD) in pediatric subspecialty (hepatology).

Started working at government university hospitals in Tripoli (Al khadraa, Salahdin and Algala children hospital) plus Gharrian teaching hospital where I have continued my research.

period were 605 patients. The mean age of children was 11.7 (SD = 8.6) months, males represented 59.0% of the children patients. Of all acute diarrheal cases, 157 (25.9%) of children presented as severe degree, out of them 14 (8.9%) were shocked, moderately dehydrated children were 439 (72.6%) and 9 (1.4%) were mildly dehydrated. Isotonic type was reported in 432 (71.4%) of dehydrated children. hypertonic dehydration was reported in 101 child (16.7%) and hypotonic in 70 children patients (11.4%). Severe-shock presentation was more frequent among children who have hypertonic dehydration (60.4%) than in those presented With hypotonic (11.8%) or isotonic (20.4%) dehydration and the type of dehydration showed a statistically significant association with the degree of the dehydration ( $p < 0.001$ ). Acute Diarrhea; Type of Dehydration; Degree of Dehydration; Thrombocytopenia

### Abstract

**Introduction:** Across all ages, diarrheal disease causes more illnesses than any other ailment and is second only to pneumonia as the largest killer of children under five years. Children who survive an episode of diarrhea, but experience recurrent infections, are more likely to suffer from lifelong cognitive and physical impairments. Diarrheal disease is preventable and treatable. Deaths have declined in recent years-but children are still getting sick and surviving, facing the long-term consequences of repeated infections. New threats like COVID-19, antibiotic resistance, climate change, migration, and urbanization create new challenges and urgency. This work was planned to determine the prevalence of different type of dehydration clinically in acute diarrhea along with serum sodium level. Study of some co morbid factors was done.

**Method:** Retrospective review study of all patients aged 1 month to 60 months admitted to Gharrian Teaching hospital with acute diarrhea < 14 days duration from 2015 to 2018. Children with Dehydration were clinically classified as mild, moderate and severe according to WHO classification and depending on serum sodium level these studied children were also classified into isonatremic--hyponatremic---hypernatremic dehydration. Complete blood picture (CBC), urea, blood sugar and arterial blood gases were done.

**Results and Discussion:** The total number of the children aged 1 month to 60 months admitted to Gharyan teaching Hospital complaining of acute diarrheal diseases during that

Interestingly, a statistically significant association between the degree of the dehydration and platelets count was reported. Shock presentation was more prevalent among children aged less than one year old (31.1%) than in the older age groups, and age displayed a statistically significant association with the degree and severity of diarrhea ( $p = 0.007$ ). No statistically significant association was found between sex and the severity of diarrhea. The median urea difference was statistically significant ( $p < 0.001$ ).

**Conclusion:** So, we conclude that acute diarrhea is still a major problem and severe hypertonic dehydration is still high in our children, so we recommend early diagnosis and uses of ORS, fluid and education of society about it, to avoid complications. Support for research and development of new drugs and vaccines can accelerate an end to the crisis.

**Keywords:** Acute Diarrhea; Type of Dehydration; Degree of Dehydration; Thrombocytopenia