Acute diarrhea and types of dehydration in Libyan children

Abstract

Acute Diarrhea is a leading cause of illness in developing countries. About seventeen of per cent Libyan children suffer from diarrhea. Diarrhea causes about 12% of mortalities in children aged 0-5 years. The aim of this study is to estimate the types and degree of dehydration and to find out the correlation between types and degree of dehydration and contributing risk factors. Seasonal variations were studied also. A retrospective study was done on all children patients admitted to Tripoli pediatric hospital during the year 2006 (from 01/01/2006 to 31/12/2006) complaining of acute diarrheal diseases, age group (one month to 60 months), with exclusion of bloody diarrhea. All the cases were evaluated for their clinical presentation and laboratory results. The results of the study was summarized as following: total were 675 admitted patients diagnosed as acute diarrhea which was (14.91%) out of the total admission (4526 patients) to this hospital during that year, 408 males, accounts for (60.44%), females were 267 patients (39.56%). Moderate dehydration was the commonest type of dehydration (374 patients = 55.44%), followed by severe type (239 patients = 35.4%) the least was mild dehydration (62 patients = 9.2%). Regarding the types of dehydration isonatremic dehydration was the commonest (458 patients = 67.85%), followed by hypertonic dehydration (121 patients = 17.93%), the least was hyponatremic type (96 patients = 14.22%). Out of these children patients 8 children died (1.19%) due to complication of acute diarrhea except one child who got other major contributing cause of mortality.

The peak of the acute diarrheal disease in this studied group was during winter and spring (months 2, 3 and 4), total patients were (276 child 40.89%). Low incidence was reported during summer and early autumn (113 child 16.74%). So we can conclude from our study that acute diarrhea diseases is a common problem and a common cause of emergency admission to hospitals, especially those with moderate isotonic dehydration followed by severe isotonic type. Mild hyponatremic dehydration was the least. Dehydration is a major risk factor especially in association with other significant illness. A lower incidence of hypertonic dehydration was reported in this study compared with our previous one. The value of ROTA virus vaccination is still to be further evaluated by multicentre studies.