SUMMARY

In this prospective study, 1200 infant and child (600 from rural and 600 from urban area) were followed-up for the detection and follow-up of cases of diarrhea for the elucidation of the risk factors that might be operative in the development persistent diarrhea.

The study was done in Qalyuobia Governerate in two areas (urban and rural); the target population of this study was children under the age of 4 years who are living in the study areas. Permanent settlers only were included in the study for prevention of contamination of our sample with those living in other areas. This study was carried out from November 1990 to July 1991.

The following results were obtained at the end of the study:

1- The magnitude of the problem of persistent diarrhea:

a- Prevalence of persistent diarrhea:

The results showed that the prevalence of persistent diarrhea was 5.6% in urban community in comparison to 10.5% in rural one. The difference was significant statistically.

b- Monthly incidence of persistent diarrhea:

1- Monthly incidence of persistent diarrhea episode /100 acute diarrhea episode ranged from 3.66% to 7.33 in rural area and 3.39 to 6.9 in urban area.

2- Monthly incidence of persistent diarrhea episodes /100 child was ranged 1.16 to 1.83 and 0.5 to 1.5 in rural and urban area respectively.

2- Risk factors for development of persistent diarrhea:

a- Host risk factors:

1- Age: The mean age of persistent diarrhea cases was significantly younger than cases with acute diarrhea.

2- Sex: The results showed no significant difference between sex in both types of diarrhea.

3- Nutritional Status: Malnutrition was significantly more observed in persistent diarrhea cases.

4- Feeding Practices: Feeding pattern prior to illness showed no significant difference in both types of diarrhea; although the acute diarrhea cases showed increased cases who were breast fed.

5- Previous Vaccinations: Showed no significant difference in both types of diarrhea.

b- Environmental Risk Factors:

1- Housing Conditions:

a- Bad floor, wall and roof of the house was observed more significantly in persistent diarrhea than in acute ones.

b- Infants with persistent diarrhea were drinking water from a common source (tap or pump) more.

c- The majority of houses of persistent cases had non-piped system for sewage disposal.

d- The presence of animals in the house was more reported in persistent cases than acute ones.

e- No significant relation between the absence of electricity or electric sets (T.V.; Radio; Fridge or Washing machine) in the house and the occurance of persistent diarrhea.

2- Previous Deaths in the Family:

Previous diarrheal deaths did not differ significantly between families of presistent and acute cases.

3- Economic Status of Families:

Increased number of house holdings in addition to lower economic conditions were slightly more observed in persistent cases.

C- Maternal Attitude and the Development of Persistent Diarrhea:

1- Significant number of mothers of infants with acute diarrhea conducted a good practice for proper management of diarrhea compared to mothers of persistent cases.

2- A good proportion of mothers said that the main cause of diarrhea is food pollution.

3- Infants of uneducated mothers were subjected more significantly to persistent diarrhea.

d- Events Preceding Persistent Diarrhea in Last Month Before Onset of Illness:

The Results Showed That:

1- 21.6% of persistent cases had history of acute diarrhea episde in last month before occurrence of persistent diarrhea.

2- 4.1% of persistent cases had history of persistent episode in last month.

3- 11.3% of persistent cases experienced acute infections.

4- 16.7% of persistent cases had history of animal milk introduction for the first time.

e- Charecters of the Persistent Episode:

Persistent diarrhea occured more frequently with:

* Watery stools and stools with blood and/or mucus.

* Frequency of defecation 3-7 day at start of the episode.

* Use of antibiotics and or antiparasitics and constipating agents.

* Vomiting of 1-6 times / day especially if lasted 1-4 days and if vomiting preceded diarrhea.

* Presence of reducing substance and pus cells in stools.

CONCLUSIONS

Acute diarrhea must be treated properly and effictively especially in young infants.

Raising the standard of living especially in rural areas with stress on the availability of piped system for sewage disposal and safe drinking water. We shoud emphasize on the importance of maternal education about personal hygeine, family spacing, proper feeding practices and cleaning of their houses.

We found that nutritional status is an important risk factor for the development of persistent diarrhea. So, the underlying causes of malnutrition (e.g. faults in feeding practices or underlying organic cause) should be searched for. Any how, the nutritional status of any infant must be evaluated regularly by the primary health care personnels for adequate prevention of both persistent and acute diarrhea. We should encourage the trials for the production of a locally available low cost diet for feeding during episodes of persistent diarrhea.