Abstract
Objective: Diarrhea is a symptom of a variety of conditions may attack the child. It considered one of mam causes of mortality rates especially in low socio-economic level countries. The child can be easily got dehydration and pass from loss of too much body fluid and due to the Common thought of increasing the incidence of diarrhea during summer season, this study is done to find out the relation between the high incidences rate of diarrhea and weather variation.
Methodology: This survey conducted in AL-Markazi Child's Teaching Hospital for the year 2005 the data were gathered from hospital records for the period (January - December) and age groups taxonomy used by hospital applied. Descriptive statistical analysis and diagrams used.

Results: The analysis revealed that the incidence of diarrhea happens all around the year and for the whole age groups. Summer results pointed out high ratio in relation to the results of spring winter and autumn seasons. Also more incidence seen among the age group (<2 months- one year) then the age group (<5 years) held the second rank in getting diarrhea.

Recommendations: The study recommended after analysis of data statistically, orientation about danger of diarrhea very necessary to whole society by different means especially the parents and issue firm legislation to keep the environment as much as it should be free from outbreak of diarrhea.

Key words: Diarrhea, child, and season.

Introduction
Diarrhea (Intestinal Hurry) is interruption of normal elimination pattern characterized by frequent loose stools (1). The food will pass through so quickly and there will be no time for proper digestion and absorption (2). It is symptom of a variety of conditions which together cause's acidosis (3).

Mild diarrhea is the passage of a few loose or mushy bowel motions; severe diarrhea is the passage of many watery bowel motions. The best indication of the severity its frequency. (4)

The specific etiology is not always identified. It is very contagious and may be fetal. Many factors can contribute to the development of diarrhea (5). These include-Introduction of a new food or formula, exposure to illness, change in routine such as travel, teething, change in water, and medication especially antibiotics.
Seasonal Diarrhea among Children

Diarrhea is most likely to be caused by a viral infection of the lining of the intestines (4). Sometimes it is caused by bacteria or parasites. Occasionally food allergies or drinking too much fruit juice may cause it. Diarrhea is also a common side effect of

where the standard of living is low, death rate is likely to be high. Socioeconomic causes are difficult to determine. The incidence of contaminated milk and other foods as a cause of the disease is highest among lowest socioeconomic groups. In the higher socioeconomic the cause is more likely to be an infection by direct and indirect contact with someone who has the organisms.

Diarrhea is common in infants and young children, because their digestive system is still developing and vulnerable to infection (5). Children under age of (5) year having average approximately two episodes each year. Infant and small children with diarrhea can quickly become dehydrated (7), because of their smaller body size and are at risk of hypovolemia, shock if fluid and electrolyte deficits are

Diarrhea usually lasts several days to a week regardless of the type of treatment. Most uncomplicated cases go away on their own with out treatment except fluids to prevent dehydration. Antidiarrheal medications should usually be avoided in.

The goal of treatment is to prevent dehydration by correction of fluid and electrolyte imbalances. Oral Rehydration Therapy (ORT) is a supportive treatment, that develops to combat the lose of water and salt .

Diarrhea is the main cause of morbidity among infants and children in many countries where sanitation and hygiene are poor. Unsanitary and unhygienic conditions have more serious consequences in infancy than in childhood because the greater susceptibility to and lesser ability to combat infection.

Emphasize the necessity of good hygienic practices to prevent the spread of "organisms that can cause diarrhea. This is crucial for keeping every one in the family safe from getting diarrhea (10).

The prevalence of diarrheal disease is so pervasive that in 978 the world health assembly established a global program to reduce mortality and morbidity in many countries. He estimated that some 5 million children under the age of two years die every year from diarrhea. Also it is estimated that one third of the pediatric beds in developing countries are occupied by children with diarrheal disease. In developing countries where flies, insects and vectors abound, domestic rubbish and human waste are indiscriminately disposed of, and the general level of personal and environmental hygiene is so minimal, it is amazing how so many children survive the onslaught of these life threatening factors (112).

Methodology

the incidence of diarrhea in relation to weather. The setting was Child's Central Hospital, this hospital is selected due to its vital location and considered the main children's hospital in the city of Baghdad. The sample was derived from the records of case wards and outpatient clinic and those who admitted to the wards, complaining of diarrhea for the year 2005. The data were collected and analyzed with respect to the hospital taxonomy to the age groups, which are as follows: (< 2 months, > 2 months - one year, > one year - 5 years, > 5 years).
Seasons (The year divided into four seasons)
- Winter (December, January and February)
- Spring (March, April and May)
- Summer (June, July and August)
- Autumn (September, October, and November)

Data analyzed by descriptive statistics (frequency, percentage, mean of score, and standard division) and diagrams.

Results

**Figure (1) The ratio between the number of sick children** and others with diarrhea

The total number of children who visited the hospital and complaining of different causes (other diseases rather than diarrhea such as leukemia, Respiratory diseases, renal and etc.) and those who are suffering of diarrhea

**Figure (2) The mean of diarrhea occurrence around the year 2005**

It reveals that episodes of diarrhea occur all around the year but there is marked case during summer then spring months
Seasonal Diarrhea among Children

Table: shows the mean and standard deviation of incidence in relation to seasons

<table>
<thead>
<tr>
<th>Seasons</th>
<th>F</th>
<th>%</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Winter</td>
<td>1578</td>
<td>22.1</td>
<td>394.5</td>
<td>276.664</td>
</tr>
<tr>
<td>Spring</td>
<td>2006</td>
<td>28.1</td>
<td>501.5</td>
<td>439.480</td>
</tr>
<tr>
<td>Summer</td>
<td>2128</td>
<td>29.8</td>
<td>532.0</td>
<td>560.797</td>
</tr>
<tr>
<td>Autumn</td>
<td>1440</td>
<td>20</td>
<td>360.0</td>
<td>312.178</td>
</tr>
<tr>
<td>Total</td>
<td>7152</td>
<td>100</td>
<td>1788</td>
<td>1589.119</td>
</tr>
</tbody>
</table>

This table shows that the more incidences occurred during summer.

**Figure (3) Number of cases visited the out - patient department**

![Figure 3](image)

It shows the number of children with "diarrhea who visited the outpatient department and those admitted to the hospital (in-patient) for more care and follow-up.

**Figure (4) Incidence among age groups**

Number of cases

![Figure 4](image)

It shows incidence among age groups. It reveals that all age groups are reliable to get diarrhea and this increase among the age group (>2 M- 1year) especially during summer months.
The Dextrolight which is used in ORT programs and offered to hospitalized patients in hospital. (ORT: Oral Rehydration Therapy: It is recommended for replacing fluid lost and electrolyte in cases of diarrhea and mild to moderate dehydration) and antibiotics suspended.

This diagram shows the death among children due to different causes and due to diarrhea in outpatient's clinic and inpatient's wards.
Seasonal Diarrhea among Children

Discussion

The approach of the study was quantitative with the aim of gaining increase insight into the relation of weather variables and its correlation with high incidence of diarrhea.

The study showed that episodes of diarrhea (diagram 1) seen all around the year, (3%) of all cases visited the hospital were suffering from this illness. Many factors can contribute to the development of diarrhea; certain happenings within a child's environment are not always within a parent's control. Lack of understanding and absence of legislations considered major issues in minimizing the outbreak of diarrhea.

On the other hand, the study revealed (The table and Diagram 2) that the peak of incidence is during summer then spring months. Priest emphasized that outbreaks of diarrhea is not uncommon especially during the summer months due to many reasons, the most important of all is infection (1).

Lack of understanding the danger of diarrhea and due to the fact that children can become quickly dehydrated, (Diagram 3) shows that (18%) of children admitted to the words for more care and treatment.

Children (diagram 4) of age < 2 months to one year are more vulnerable to get diarrhea (57.1%) often the offender cannot be identified but contamination, overfeeding (6) unbalance diets containing excessive amount of sweets, and spoiled foods are considered main offenders in occurrence the study also exhibited that the children of age one year to 5 years (24%) are forming the rank two in displaying this symptom. For this age group other factors of importance in relation to nutrition and health care sufficient sleep, fresh air exercise combined with emotional stability all help to maintain a good appetite and a happy healthy individual also children should be taught by their parents whom should acknowledge the danger of how to recognize food that is fresh and clean particularly when it is bought from out side homes. In addition, this study showed (Diagram 5) how much medication although recent studies suggest that medications such as Lomotil, Paregoric, and Pectin, which slow intestinal mobility, may prolong the course of some infections entreaties. They should be generally avoided in the treatment of children and stick to the use of Oral Rehydration Solution (ORS: containing 75 to 90m MOL sodium and 111 to 139m MOL glucose (e.g., world heath Organization solution, Pedialyte RS, Rehydralyte) is most commonly recommended for the first 4 to 6 hours. 50 ml of solution for each kg of the child weight should be the target intake.).

Death among children is dramatic episode to the family; diarrhea is one of the disorders responsible of high morbidity rate in many countries among children (Diagram 6) shows the death among children due to different causes and due to diarrhea.
Recommendations

1. Every effort should make to educate parents and children good social habits in concern to feeding whether from home or outside the home especially during summer season.

2. Measures should be taken to prevent infection spread by food inspection and delegates firm regulations.

3. Teaching the parents especially the mothers about diarrhea and its precautions via media.

4. Teaching the contacts (health personnel) who give care to the sick children, the importance of prevention and cross infection for the sake of children health and nation.

5. Ministry of health involvement authorities should take the responsibility of indulging all other ministries in the programs regarding to prevent of diarrhea.

6. Establish "Diarrhea Control Programs," these programs focus on the promotion of oral rehydration therapy and supplementary feeding programs. However all these programs must be considered in conjunction with improving the social and economic conditions that contribute to safe environment, sanitary and general living conditions of population around the world.

References


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