Journal of Advanced Medical and Dental Sciences Research

@Society of Scientific Research and Studies

Journal home page: www.jamdsr.com doi: 10.21276/jamdsr ICV 2018= 82.06

(e) ISSN Online: 2321-9599; (p) ISSN Print: 2348-6805

Original Research

Assessment of clinical profile and management of cases of diarrhoea in emergency ward

Rajesh Sharma[1], Richa Sharma[2]

[1]Assistant Professor, Department of Medicine, Saraswati Institute of Medical Science, Hapur, U.P., India;
[2]Associate Professor, Department of Medicine, Saraswati Institute of Medical Science, Hapur, U.P., India

***ABSTRACT*:**
Background: Acute diarrhea in adults is a common problem encountered by family physicians. The present study was conducted to assess cases of diarrhoea in emergency ward. **Materials & Methods:** The present study was conducted on 54 cases of diarrhoea reported to emergency ward. General data such as name, age, gender etc. was recorded. In all patients clinical profile was recorded. **Results:** Out of 54 patients, males were 34 and females were 20. The mean duration of diarrhoea was 3.4 days, watery stool was present in 46, bloody stool in 8, fever in 42, vomiting in 31, pain abdomen in 35, cough in 21, dehydration was present in some in 28 and severe in 5, altered sensorium in 32, shock in 12, anuria in 15 and aspiration pneumonitis in 7. The difference was significant (P< 0.05). The management given was antibiotic in 12%, antiparasitic in 4%, antiemetic in 15%, antipyretic in 20%, antispasmodic in 46% and probiotics in 3%. The difference was significant (P< 0.05). **Conclusion:** Common clinical features were watery stool, bloody stool, fever, vomiting, pain abdomen, cough and dehydration.
Key words: Dehydration, Diarrhoea, Probiotics.

Received: 15 March, 2019 Revised: 02 August 2019 Accepted: 05 August 2019

Corresponding author: Dr. Richa Sharma, Associate Professor, Department of Medicine, Saraswati Institute of Medical Science, Hapur, U.P., India

This article may be cited as: Sharma R, Sharma R. Assessment of clinical profile and management of cases of diarrhoea in emergency ward. J Adv Med Dent Scie Res 2019;7(8): 187-190.

INTRODUCTION

Every year more than a million children under five years of age succumb to the fluid loss and dehydration associated with the majority of diarrhoea related deaths. It is estimated that 13% of all years lost due to ill-health, disability, or early death are caused by diarrhea. The lack of access to safe, clean drinking-water and basic sanitation, as well as poor hygiene cause nearly 90% of all deaths from diarrhoea, mainly in children.[1]

Acute diarrhea in adults is a common problem encountered by family physicians. The most common etiology is viral gastroenteritis, a self-limited disease. Increases in travel, comorbidities, and food borne illness lead to more bacteria-related cases of acute diarrhea. A history and physical examination evaluating for risk factors and signs of inflammatory diarrhea and/or severe dehydration can direct any needed testing and treatment. Most patients do not require laboratory workup, and routine stool cultures are not recommended. Treatment focuses on preventing and treating dehydration.[2]

Diagnostic investigation should be reserved for patients with severe dehydration or illness, persistent fever, bloody stool, or immunosuppression, and for cases of suspected nosocomial infection or outbreak. Oral rehydration therapy with early refeading is the preferred treatment for dehydration.[3] Antimotility agents should be avoided in patients with bloody diarrhea, but loperamide/simethicone may improve symptoms in patients with watery diarrhea. Probiotic use may shorten the duration of illness. When used appropriately, antibiotics are effective in the treatment of shigellosis, campylobacteriosis, Clostridium difficile, traveler's diarrhea, and protozoal infections. Prevention of acute diarrhea is promoted through adequate hand washing, safe food preparation, access to clean water, and

vaccinations.[4] The present study was conducted to assess cases of diarrhoea in emergency ward.

MATERIALS & METHODS

The present study was conducted in the emergency department. It comprised of 54 cases of diarrhoea reported to emergency ward. The study protocol was approved from institutional ethical committee. All patients were informed regarding the study and written consent was obtained.
General data such as name, age, gender etc. was recorded. In all patients clinical profile was recorded. Results thus obtained were subjected to statistical analysis. P value less than 0.05 was considered significant (P< 0.05).

RESULTS

Table I Distribution of patients

Total- 54		
Gender	**Males**	**Females**
Number	34	20

Table II shows than out of 54 patients, males were 34 and females were 20.

Table II Clinical profile of acute diarrhea

Features	Number	P value
Duration of diarrhoea	3.4 days	0.05
Watery	46	
Bloody	8	
Fever	42	
Vomiting	31	
Pain abdomen	35	
Cough	21	
Dehydration		
No	21	
Some	28	
Severe	5	
Altered sensorium	32	
Shock	12	
Anuria	15	
Aspiration pneumonitis	7	

Table II, graph I shows that mean duration of diarrhoea was 3.4 days, watery stool was present in 46, bloody stool in 8, fever in 42, vomiting in 31, pain abdomen in 35, cough in 21, dehydration was present in some in 28 and severe in 5, altered sensorium in 32, shock in 12, anuria in 15 and aspiration pneumonitis in 7. The difference was significant (P< 0.05).

Graph I Clinical profile of acute diarrhea

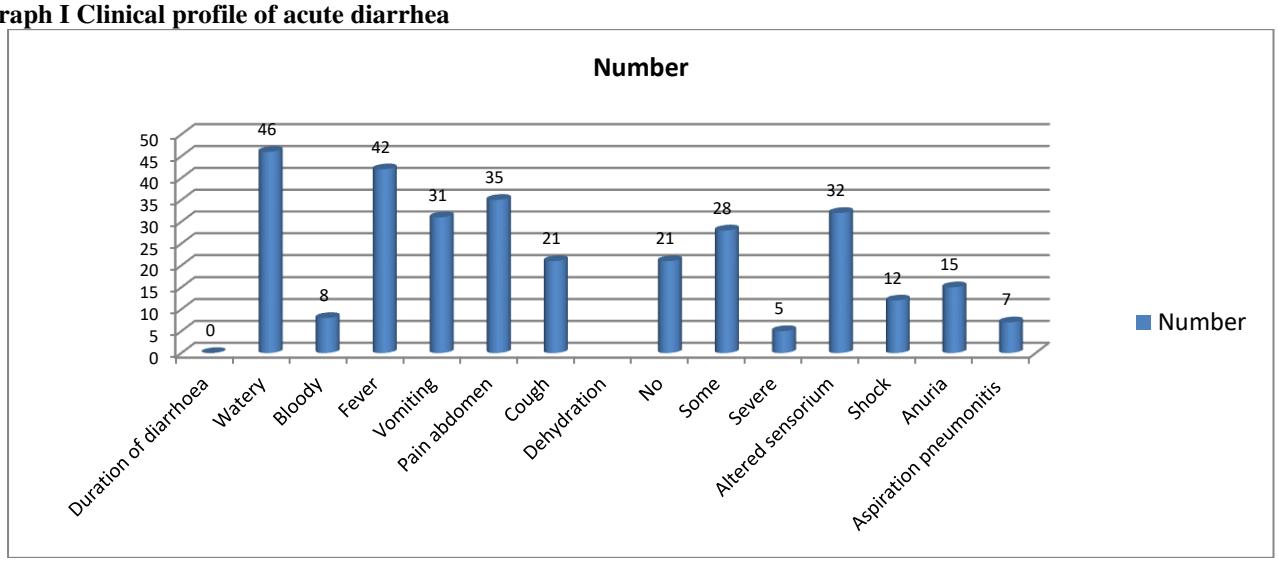

Table III Trend of management of cases

Management	Percentage	P value
Antibiotic	12%	0.01
Antiparasitic	4%	
Antiemetic	15%	
Antipyretics	20%	
Antispasmodic	46%	
Pro- biotic	3%	

Table III shows that management given was antibiotic in 12%, antiparasitic in 4%, antiemetic in 15%, antipyretic in 20%, antispasmodic in 46% and probiotics in 3%. The difference was significant (P< 0.05).

DISCUSSION

Acute diarrhea is defined as stool with increased water content, volume, or frequency that lasts less than 14 days. Diarrheal illness accounts for 2.5 million deaths per year worldwide. In the United States, an estimated 48 million food borne diarrheal illnesses occur annually, resulting in more than 128,000 hospitalizations and 3,000 deaths.[5] In the developing world, infectious causes of acute diarrhea are largely related to contaminated food and water supplies. In the developed world, technological progress and an increase in mass production of food have paradoxically contributed to the persistence of food-borne illness, despite higher standards of food production.[6]

Infectious causes of acute diarrhea include viruses, bacteria, and, less often, parasites. Noninfectious causes include medication adverse effects, acute abdominal processes, gastroenterologic disease, and endocrine disease.[7] Clinically, acute infectious diarrhea is classified into two pathophysiologic syndromes, commonly referred to as non-inflammatory (mostly viral, milder disease) and inflammatory (mostly invasive or with toxin-producing bacteria, more severe disease.[8] The present study was conducted to assess cases of diarrhoea in emergency.

In this study, out of 54 patients, males were 34 and females were 20. Abbas et al[9] conducted a qualitative, cross-sectional, hospital based study carried among children aged 6 months to 5yrs.This study was conducted among 313 children of acute diarrhoea who had been treated outside. Mean age (months) was 27.53±15.87. Out of all children who were treated from outside, 180 (57.50%) took treatment from general physician, 113 (36.10%) children took the treatment from pediatrician, and 20 (6.85%) took the treatment from the physician and 25 (7.9%) took treatment as over the counter antidiarrheal by the pharmacists. Out of them dehydration was documented only in 97 (30.99%), while ORS was given in 229 (73.16%) and zinc was given in 121 (38.65%) children. Patients education was done in 39 (12.46%).

We found that mean duration of diarrhoea was 3.4 days, watery stool was present in 46, bloody stool in 8, fever in 42, vomiting in 31, pain abdomen in 35, cough in 21, dehydration was present in some in 28 and severe in 5, altered sensorium in 32, shock in 12, anuria in 15 and aspiration pneumonitis in 7. The onset, duration, severity, and frequency of diarrhea should be noted, with particular attention to stool character (e.g., watery, bloody, mucus-filled, purulent, bilious).[10] The patient should be evaluated for signs of dehydration, including decreased urine output, thirst, dizziness, and change in mental status. Vomiting is more suggestive of viral illness or illness caused by ingestion of a preformed bacterial toxin. Symptoms more suggestive of invasive bacterial (inflammatory) diarrhea include fever, tenesmus, and grossly bloody stool.[11]

A food and travel history is helpful to evaluate potential exposures. Children in day care, nursing home residents, food handlers, and recently hospitalized patients are at high risk of infectious diarrheal illness. Pregnant women have a 12-fold increased risk of listeriosis, which is primarily contracted by consuming cold meats, soft cheeses, and raw milk. Recent sick contacts and use of antibiotics and other medications should be noted in patients with acute diarrhea. Sexual practices that include receptive anal and oral-anal contact increase the possibility of direct rectal inoculation and fecal-oral transmission.[12]

CONCLUSION

Authors found that common clinical features were watery stool, bloody stool, fever, vomiting, pain abdomen, cough and dehydration.

REFERENCES

1. Checkley W, Buckley G, Gilman RH, Assis AM, Guerrant RL, Morris SS, et al. Childhood malnutrition and infection network. Multi-country analysis of the effects of diarrhoea on childhood stunting. Int J Epidemiol. 2008;37(4):816-30.
2. Cash RA, Nalin DR, Rochat R, Reller LB, Haque ZA, Rahman AS. A clinical trial of oral therapy in a rural cholera-treatment center. Am J Trop Med Hyg. 1970;19(4):653-6.
3. Mahalanabis D, Choudhuri AB, Bagchi NG, Bhattacharya AK, Simpson TW. Oral fluid therapy of cholera among Bangladesh refugees. Johns Hopkins Med J. 1973;132(4):197-205.
4. Mahalanabis D, Wallace CK, Kallen RJ, Mondal A, Pierce NF. Water and electrolyte losses due to cholera in infants and small children: a recovery balance study. Pediatrics. 1970;45(3):374-85.

5. Nalin DR, Cash RA. Oral or nasogastric maintenance therapy in pediatric cholera patients. J Pediatr. 1971;78(2):355-8.
6. Nalin DR, Cash RA, Islam R, Molla M, Phillips RA. Oral maintenance therapy for cholera in adults. Lancet. 1968;2(7564):370-3.
7. Pierce NF, Banwell JG, Rupak DM, Mitra RC, Caranasos GJ, Keimowitz RI, et al. Effect of intragastric glucose-electrolyte infusion upon water and electrolyte balance in Asiatic cholera. Gastroenterology. 1968;55(3):333-43.
8. Pierce NF, Sack RB, Mitra RC, Banwell JG, Brigham KL, Fedson DS, et al. Replacement of water and electrolyte losses in cholera by an oral glucose-electrolyte solution. Ann Intern Med. 1969;70(6):1173-81.
9. Abbas J, Pandey DC, Verma A, Kumar V. Management of acute diarrhea in children: Is the treatment guidelines is really implemented? Int J Res Med Sci 2018;6:539-44.
10. Duggan C, Lasche J, McCarty M, Mitchell K, Dershewitz R, Lerman SJ, et al. Oral rehydration solution for acute diarrhea prevents subsequent unscheduled follow-up visits. Pediatrics. 1999;104(3):e29.
11. Fischer Walker CL, Fontaine O, Young MW, Black RE. Zinc and low osmolarity oral rehydration salts for diarrhoea: a renewed call to action. Bull World Health Organ. 2009;87(10):780-6.
12. Bryce J, Boschi-Pinto C, Shibuya K, Black RE. WHO child health epidemiology reference group. who estimates of the causes of death in children. Lancet. 2005;365(9465):1147-52.