



STUDY OF PREVALENCE OF DIARRHOEAL DISEASES AMONGST TRIBAL POPULATION – SARGUJA DISTRICT CHHATTISGARH.

Medicine

Dr Anil Prasad

Assistant Professor, Department of Medicine, GMC, Ambikapur, CG

Dr R.N.Gupta*

Associate Professor, Department of Medicine, GMC, Ambikapur CG *Corresponding Author

Dr. Lakhansingh

Professor & Head, Department of Medicine, GMC, Ambikapur, CG

ABSTRACT

Acute diarrheal disease with its accompanying dehydration has remained a challenging problem to the medical profession and the community in the third world countries especially in the tribal population. The current study was conducted to study the prevalence of diarrheal diseases amongst different age group of tribal population and the seasonal distribution of diarrheal diseases. It was an epidemiological study conducted among 10221 population of only diarrhoea affected villages. Maximum cases of diarrhoea affected are 151 (1.47%) and 22 (14.5%) were in under 15 Year age and 129 (85.4%) were adults. 90.60% episodes of diarrhoea were treated at home with ORS and/or home available fluids. All the diarrheal episodes 151 (46.39%) were occurred in monsoon season.

KEYWORDS

Acute diarrheal disease, Tribal population, monsoon, ORS

INTRODUCTION

Acute diarrheal disease with its accompanying dehydration has remained a challenging problem to the medical profession and the community specially villages and tribal population. The WHO estimates that four million children under the age of five die each year in the world from diarrhoea mainly in developing countries, diarrhoeal disease is second most common leading cause of death in children under five. A significant proportion of diarrhoeal disease can be prevented through safe drinking water and adequate sanitation and hygiene. These diseases are usually caused by water-borne pathogens such as salmonella, E. coli, shigella and enteroviruses.[2] "The diseases associated with water are heavily contaminated in the developing world" comments Dr. Kreisel. "They hit hardest the poorest urban and rural households of the poor countries. Nearly half of the populations in developing countries suffer from health problems directly linked to insufficient or contaminated water"[3] In hospitals up to a third of total admissions are due to diarrheal diseases and up to 17% of all deaths in indoor patients are diarrhoea related. [4] The household surveys carried out during monsoon in a month of august 2016 showed that in diarrhoea episodes were 151 and morbidity rate was 1.7 episodes per year per child[5]

AIMS AND OBJECTS -

The objective of study is to find out [1] To control Diarrhoea in affected area. [2] To Identify possible causes specially epidemiological. [3] Identify other more facility require to control. [4] Line listing of deaths. [5] Reviewing cause of death. [6] List out all drinking water sources. [7] Collection of water sample both from source and storage points. [8] Health education of family members.

MATERIAL AND METHODS

The present study was carried out during monsoon season in month of august 2016. The team visited door to door diarrhoea affected area of Main pat District Sarguja, Asgawa, Piaga, Narmadapur, Ropkha, villages of Main pat PHC. In Main pat PHC these villages are affected from diarrhoea and few causality also happened, these villages during same time Mainpat PHC, 5 diarrhoea affected villages were selected by systematic random sampling method. more than 15 Year and less than 15 Year age group were selected. A house to house survey was done in families. Mothers and Family head were specifically interviewed to know about drinking water and sources water of during diarrhoea. A longitudinal study was planned to find out etiological causes and health seeking behaviour for diarrheal diseases and laboratory investigations of selected stool samples. The stool and water samples were examined microscopically by concentration technique for presence of Ova, cysts, cells of parasites in a private laboratory.

RESULTS:-

Table 1; Age & Sex distribution of Diarrhoea cases which we have found at there

Sno	Name of Village	Sex		Age	
		Male	Female	Adult	Children
1	Asgawa(junapara) Population 1370	04	00	04	00
2	Piaga (1351-Population)	00	01	01	00
3	Narmadapur(7500-Population)	01	03	03	01
4	Ropakhar	01	00	01	00
5	Sapnadar	00	01	01	00
	Total	06	05	10	01

Graph 01-

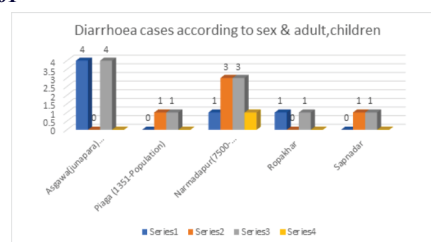


Table 02: Caste wise distribution of Diarrhoea cases which we have found at there

SNo	Name of Village	Caste			
		ST(Manjhi)	SC	OBC(Panika)	Other
1	Asgawa(janapara) 1370	03	00	01	00
2	Piaga(1351)	01	00	00	00
3	Narmadapur (7500)	04	00	01	00
4	Ropakhar	01	00	0	00
5	Sanadar	01	00	00	00
	Total	10	00	01	00

Graph 02-

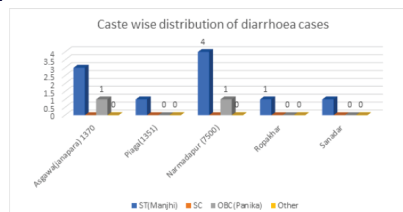


Table 03:

Total population of diarrhoea affected village studies-10221. From the population of village on duration of epidemic of diarrhoea 151 cases were found. The classification of 151 diarrhoea cases as given below:

Cases of Diarrhoea	Less than 15 years	More than 15 Years	Total
Gender	22	129	151
Male	13(59.09%)	92(71.3%)	105(69.5%)

Female	09(40.01%)	37(28.6%)	46 (30.46%)
Total	22(14.5%)	129(85.4%)	151(100%)

Graphs 03:

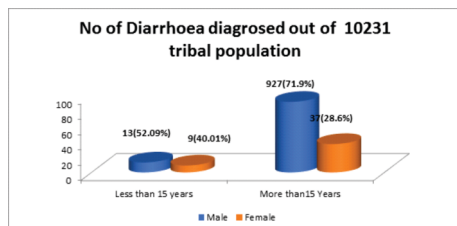


Table 1 shows age & Sex of diarrhoea cases distribution. shows no. **Table 2** is showing no. of diarrhoea cases in among caste wise distribution. **Table 03** is showing cross tab between cases of diarrhoea & gender wise. In two category of age groups. Among 10221 were diarrheal episodes followed by children in the age group 1- 15, (14.5). Maximum cases of diarrhoea adults (85.4%) were in age group more than 15 Year which was statistically significant. ($X^2=26.75$, $df=1$, $p<0.001$). It is showing in winter season no of diarrhoea cases in five visited villages. **Graph 01** is showing 151 diarrhoea is according to age & sex. **Graph 02** is showing caste wise affected diarrhoea cases in affected villages. **Graph 03** is showing diarrhoea cases distributed according to caste wise of visited population of affected 05 villages. Graph 03 is showing no of diarrhoea in two category according to gender wise.

DISCUSSION:

The prevalence rates of diarrhea in the present study was similar (24.8%) to a study done in urban slum of Puducherry among under-five children.[06] The prevalence of diarrhea as well as ARI were four times higher than the estimate for Chittoor district as reported in District level household and facility survey (DLHS)-III[07] and three times higher than that reported done in tribal area of Maharashtra (5.8%).[08] The present results were lower compared to urban slum of West Bengal (31.7%)[09] and rural areas of Kashmir 25.2% (2 weeks).[10] Around half (43.1%) of the mothers and caregivers knew that children with diarrhea should receive extra fluids. Similar findings were reported in DLHS-III (41.0%).[07] In contrast, a study done in Wardha district, Maharashtra documented that around two thirds (60%) of the mothers practiced oral rehydration therapy. Nearly, one third continued to give the usual amount of food during a diarrheal episode.[09] The prevalence of diarrhea in the present study was higher than that reported by other studies in tribal areas,[3,7,10] but lower than rural and urban slums.

The findings of the health situation being better than other tribal areas, but poorer than in urban slums or rural areas might reflect the changing socioeconomic situation and habits of the tribal population. Relatively lower prevalence of malnutrition can be attributed to the relatively better economic position of the Sugalis compared to the other tribes of Andhra Pradesh. Sugalis are relatively better off in terms of living conditions, educational attainment, extent of land holdings and other sources of earnings, and could access the government services and schemes, which have contributed in the process of economic development of the community. Successes of the various inclusive and developmental processes by the government as well as nongovernmental organizations in the lives of Sugali have been documented.[11]. The study has its limitations as well. The number of episodes of diarrhea were self-reported for last 1 week and there could be a possibility of recall bias. The information on diarrhea was collected in the months of August. As the diarrhea is seasonal diseases, this does not reflect the annual load of morbidity. Various practices and processes, especially that focus on the development and integration of a tribal population can be better assessed through qualitative techniques; however, this was beyond the scope of the present study. For children who could stand independently "tare" weighing was done. This could have introduced some degree of measurement error leading to underestimation of malnutrition.

CONCLUSION AND RECOMMENDATIONS

Out of 151 diarrheal diseases affected 22 less than 15 years (14.5%) and 129 (85.5%) diarrheal episodes per child per year was 4.76 which was higher than 2.97, that was observed in 1-5 yrs age group. Maximum no of cases of the diarrheal episodes 2798 (39%) were occurred in monsoon season, 2186 (36.25%) episodes in summer and

1047 (17.36%) in winter. 5464 (90.60%) episodes were treated at home, 527 (8.24%) need to consult doctor and 40 (0.66%) children were hospitalized. We observed Adequate medical facility provided, [1] Well organized Information and Medical facility provided round the clock by the Medical persons with the help of local people.[2] Providing door to door screening and education activity regarding hygiene, food and water cleanliness.[3] providing cooked food to all villagers of affected villages. Adequate medical facility are provided at all affected area, resulting sudden decrease in diarrhea incidence and severity of cases. Still some places are remaining where new cases are coming after raining.

REFERENCES:

1. Meshram II, Balakrishna N, Arlappa N, Rao KM, Laxmaiah A, Brahmam GN. Prevalence of under nutrition, its determinants, and seasonal-variation-among tribal preschool children of Odisha state, India. *Asia Pac J Public Health*. 2012;11:125-32.
2. Ray SK, Biswas AB, Kumar S. A study of dietary pattern, household food security and nutritional profile of under-five children of a community of West Bengal. *J Indian Med Assoc*. 2000;98:517.
3. Meshram II, Arlappa N, Balakrishna N, Laxmaiah A, Mallikarjun Rao K, Gal Reddy Ch, et al. Prevalence and determinants of undernutrition and its trends among pre-school tribal children of Maharashtra State, India. *J Trop Pediatr*. 2012;58:125-32.
4. Sengupta P, Philip N, Benjamin AI. Epidemiological correlates of under-nutrition in under-5 years children in an urban slum of Ludhiana. *Health Popul Perspect Issues*. 2010;33:1-9.
5. Shit S, Taraphdar P, Mukhopadhyay DK, Sinhababu A, Biswas AB. Assessment of nutritional status by composite index for anthropometric failure: A study among slum children in Bankura, West Bengal. *Indian J Public Health*. 2012;56:305-7.
6. Upadhyay RP, Chinnakali P, Bhilwar M, Krishnan B, Kulkarni V, Gupta A, et al. Prevalence of malnutrition, acute respiratory infections and diarrhoea in children aged 1-5 years in urban slums of Puducherry, South India. *Int J Contemp Pediatr*. 2015;2:37-41.
7. District Level Household & Facility Survey, India. 2007-2008. [Last cited on 2013 Jun 15]. Available from: <http://www.rchiips.org/prch-3.html>.
8. Giri VC, Dhage VR, Zodpey SP, Ughade SN, Biranjan JR. Prevalence and pattern of childhood morbidity in a tribal area of Maharashtra. *Indian J Public Health*. 2008;52:207-9.
9. Banerjee B, Hazra S, Bandyopadhyay D. Diarrhea management among under fives. *Indian Pediatr*. 2004;41:255-60.
10. Ahmed SF, Farheen A, Muzaffar A, Mattoo GM. Prevalence of diarrhoeal disease, its seasonal and age variation in under- fives in Kashmir, India. *Int J Health Sci (Qassim)*. 2008;2:126-33.
11. Eswarappa K. Inclusion of Sugali community in the development process: A case study from South India. *Int J Sociol Anthropol*. 2012;4:204-17.