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POLLUTION CAUSING HEALTH DISORDERS IN S.V.NAGAR, TIRUPATI : A CLINICAL SURVEY

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Abstract

The state of health of the people does not depend on the number of doctors and hospitals only, but also on a clean environment. Ubranization and over population together are making the human environmen, a paradise for infectious agents. They easily attack human health through air, water and food. In the present study, the health disorders caused by environmental pollution were studied in a small colony called S.V. Nagar, Tirupati town to prove the present day conditions of the world scenario by the way of clinical survey. Diarrhoeal diseases and allergic diseases were more frequent. Most of the diseases were linked with water.

Introduction

Economic growth is essential for progress in any country but the growth is achieved at the cost of polluting air and water, destroying forests and depleting natural resources. Such growth does not have welfare effect. It is a condition noted all over the world and no country has so far won the war against poverty without economic growth. But economic growth has itself often caused serious environmental damage, threatening the present and future quality of life, though such disquietening influences of income growth are all avoidable. The poverty causes risks to environmental health, and economic productivity, associated with polluted water, inadequate sanitation, air pollution, and land degradation, all of which are hazardous to human health. It is specifically mentioned that in poor countries:

- Diarrhoeal diseases resulting from contaminated water kills over 3 million children per annum, and causes about 900 million cases of illness each year.
- Indoor air pollution from burning wood, charcoal, or animal endangers the health of 400-700 million people world wide.
- Dust and soot in city air causes between 300,000 and 700,000 premature deaths per annum.
- Soil erosion can cause annual economic losses ranging from 0.5 per cent to 1.5 per cent of GNP.
- Twenty five per cent of all irrigated land suffers from salivation, and
- Tropical forests, the primary source of livelihood for about 140 million people are being lost at the rate of 0.9 per cent per annum.

The present environmental crises in the world pertaining to ill health motivated the author to prove the truthfulness of the problem by making a little bit of attempt in her own residing area.

Objectives of the study

1. To prove world environmental pollution crisis in a bit of local area
2. To know the pollution affecting disorders in the local area
3. To study which group of people are affected more.
4. To study which part of the body is more affected and for what reasons.
5. To study the frequency of the diseases.
6. To know what kind of pollution is affecting more.

Sample of the study

The sample selected for the present study was S.V.Nagar area, which is surrounded by labour huts. A major drainage canal is passing through the area. Many people residing on both sides of the drainage are adjacent to the drain and also on the drain.

Size of the sample

The study area consists of approximately 4 to 5 thousand population. A list of 40 pollution causing disorders were recorded out of 200 general disorders undertaking treatment in the evening times for three days. These pollution causing disorders cases were taken as samples for my study.

Method of the study

Clinical survey method. Survey made in the clinic.

Procedure

In the evening times at 6.00 to 8.00 p.m I went to the Sai Clinic for three days from the 28th to 30th July 2002. In the two hours time I had taken a list of general patients from the concerned staff. With the help of the doctor Dr. Srinivasa Rao a list of pollution causing disorders were separated out. The details of the patients were collected from the nurse and also from the patients. The details collected were name of the patient, age, sex, part of the body affected. The reasons for the disease and the name of the disease were also recorded with the help of the doctor. This information was used for further analysis.

The Results

The raw data (table-1) collected on the pollution causing disorders were analysed and prepared in separate tables for source, sex and part of the body affected, disorders, and were shown in tables 2,3 and 4.

Table - 1
List of Pollution Causing Disorders Observed in the
Evening Times of 28 to 30th July 2002 in the Sai Clinic, S.V.Nagar, Tirupati

Sl. No.	Name of the Patient	Age	Sex	Health Disorder	Part of the Body affected	Barrier / Source
1.	Devaki	26	Female	Amoebiasis	Intestine	Water
2.	Nagamma	27	Female	Allergic Conjectures (dust)	Eyes	Air
3.	Praveen	24	Male	Typhoid	Stomach	Water
4.	Sampoornamma	65	Female	Asthema	Lungs	Air
5.	Chalapati	52	Male	Headache	Head	Air
6.	Krishna Murthy Chetty	20	Male	Amoebiasis	Intestine	Water
7.	Venkata Prasad	30	Male	Jaundice	Liver	Water
8.	Lakshmi Devi	42	Female	Allergic Rhinitis (Dust)	Nose	Air
9.	Nagamba	43	Female	Allergic Dermatitis	Skin	Metal contact
10.	Subramanyam	30	Male	Stomach Pain	Stomach	Food
11.	Vasantha	35	Female	Hair Dye Allergy	Head	Dye contact
12.	Khadar	30	Male	Warm infestation	Intestine	Water
13.	Chandrakala	26	Female	Caris teeth - fluoride	Teeth	Water
14.	Aadhemma	40	Female	Allergic Bronchitis (Cough)	Lungs	Air (smoke)
15.	Saroja	45	Female	Allergic dermatitis	Skin	Detergents contact
16.	Venkatamma	65	Female	Gastro enteritis	Intestine	Water
17.	Sunitha	30	Female	Desentry (blood motum	Intestine	Food
18.	Chinnabba	49	Male	Oral cancer	Lungs	Air
19.	Dinesh	28	Male	Taenia Pedisu	Foot	Detergent
20.	Sandhya	13	Female	Bacterial desentry	Intestine	Water
21.	Madhu Kumar	28	Male	Typhoid	Intestine	Water
22.	Ramayya	75	Female	Cholera	Intestine	Water
23.	Santha Kumari	8	Male	Bacterial Desentry	Intestine	Water
24.	Chalapathi Naidu	52	Female	Lung cancer	Lungs	Water
25.	Chengamma	47	Female	Allergic Bronchitis (Cough)	Lungs	Air (Smoke)
26.	Lakshmi	38	Female	Taenia Pedis	Foot	Water (detergents)
27.	Nagamma	25	Female	Allergic rhinityn	Nose	Weather change
28.	Jayamma	70	Male	Bronchiole asthma	Lungs	Air
29.	Chandrakala	36	Female	Taenia mannum	Hands	Water
30.	Gayathri	16	Female	Warm infestation	Intestine	Water

Sl. No.	Name of the Patient	Age	Sex	Health Disorder	Part of the Body affected	Barrier / Source
31.	Sireesha	9	Female	Amoebiasis	Intestine	Water
32.	Ravi Kumar	35	Male	Diarrhoeas	Intestine	Water
33.	Saroja	58	Female	Branchial asthma	Lungs	Air (Smoke)
34.	Jayashankar	38	Male	Taenia pedis	Foot	Water
35.	Parvathi	27	Female	Asthma	Lungs	Air
36.	Govindra Swamy	73	Male	Lung Cancer	Lungs	Air
37.	Sailakshmi	25	Female	Allergy	Ear	Metal Contact
38.	Pattamma	45	Female	Taenia Mannum	Hands	Water
39.	Amulu	22	Female	Caris teeth	Teeth	Water
40.	Sankari	18	Female	Bacterial dysentery	Intestine	Water

Table - 2

Sources Through Which Disorders Caused

Sl.No.	Source of the Disorder	Number of cases observed	Percent
1.	Water	22	55
2.	Air	11	28
3.	Food	2	5
4.	Metal	2	5
5.	Chemical contact	3	7

Table - 3

Age and Sex Wise Respondents/Victims to the Environmental Pollution in S.V.Nagar, Tirupati

Sl.No.	Category	Number of Cases Affected	Per cent
1.	Children	3	7.5
2.	Women	23	57.5
3.	Men	14	35.0

Table - 4

Body Parts Affected due to Environmental Pollution in Males and Females of S.V.Nagar Tirupati from 28 to 30 July - 2002

Sl.No.	Part of the Body Affected	Male	Female
1.	Lungs	3	7
2.	Intestine	5	8
3.	Ear	0	1
4.	Nose	0	2
5.	Hands	0	2
6.	Foot	2	1

Discussions

The study on the pollution causing disorders in S.V.Nagar, Tirupati (Table-1) revealed that 40 cases of Pollution causing disorder cases were noted out of 200 general disorders in Sai Clinic for three days, only in evening times, during the survey. The data collected for the study in the Table - 2 shows that the causes for the diseases in that area are water, air, food, metal and chemicals. It is surprising to note that in a small area consisting of 4000 peopele, there were 200 patients recorded in a single hospital in three days time. The study was made only in evening times. If it was a whole day the number of cases would be still more. Of course, patients come from other surrounding places. Among them, 40 patients were suffering from ill health due to different pollutions. Although it was a general clinic, the cases were high. It is assumed that many other cases related to special cases might have gone to ENT, Skin, Gynic, orthopedic, eye and heart specialists. If all the cases were recorded the number of victims would be further enhanced.

Table-2 shows that the health disorders mainly occur through water, because it ranks high in the study. 55% of the cases were caused through water contamination. Next in the order goes to air pollution which is 28%. Food, metal, and chemical allergies were 5% and 7% respectively. Water scarcity is prevailing in the area. The water in this area is salty to the taste. Water storage tanks and vessels are deposited with thick salty layers. A main open drainage canal passes in the midst of the area. Bore wells are situated on the sides of the drainage. The main water source is bore water in that drainage area. Fluoride content is also high. Very poor illiterate people depending on labour work are dwelling along the road sides and drainage canal sides. Because of these reasons, contamination of the water is high. The water borne diseases in the area recorded are due to the unsanitary environment, unclean drinking water and malnutrition due to poverty. Diarrhoeas attack particularly children and old people (Sharma, 1995).

In the present study, table-3 reveals that the pollution causing effects are significantly high in women as 58% of the victims are women. It is assumed that the majority of the women were housewives and servant maids. The diseases might be due to smoke effects in the kitchen or washing (utensils, clothes) effects as they work in the water most of the time. As S.V.Nagar is situated on the main road side the dust allergy also causes

disease. Only 8% of the cases were children because, due to awareness in the people the cases related to children might have gone to children specialists, otherwise the pollution causing effects recorded would be high in case of children. In the case of men, they were away from the area most of the time due to their jobs or livelihood.

In the Table-4 the intestine and lungs were affected more because water contamination easily attacks the intestine, and the dust particles and smoke in the air attack the lungs. Hands and feet might be affected when they continuously worked in the water.

Summary and Conclusions

The environmental pollution crises in the world scenario proved in a small bit of local area also. In a small area, 20% of health disorders are due to local pollutions recorded in three days of study. The sources of disease causing agents were water, air, food, metal and chemicals. The people affected were very poor and working as servant maids and labourers. The majority of the victims were women. The body parts affected were lungs, intestine, hands, nose and foot. Diarrhoeal diseases and allergic diseases were more frequent. Most of the diseases were linked with water.

It is concluded that the majority of the pollution causing diseases are linked with water, i.e water borne diseases are more frequent. When compared to men the women are significantly affected. It is also noted that intestine and lungs are easily attacked.

Suggestions

1. Illiteracy must be overcome
2. Environmental awareness must be created in the peop le
3. Health and hygienic awareness must be created and maintained.
4. Pure drinking water must be supplied.
5. Underground sewage must be constructed.

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