

Heat Stroke (Loo) - A Geoenvironmental Crisis In Rajasthan

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ABSTRACT-Solar Heat is a pre-dominant as well as significant component of geo-environmental conditions for existence of any sort of life form at Regional or global level and individual or society level. The area under study i.e. Rajasthan state is located in the north-west direction of our country. From geographical extension point of view the state lies from 23°3' to 30° 12' north latitude and from 69° 30' to 78° 17' east longitude. The State has different kinds of topographical features, physical conditions and types of climate, respectively.

Division-wise average number of incidences of Heat Stroke (in percentage), the observations analytic aspect revealed some interesting facts in this aspect. The study revealed some meaningful results of applied values that as the spatial distribution of Heat Stroke Patients increases or decreases division-wise, the author observed district-wise distribution of number of incidences of Heat Stroke disease fluctuate more or less with same ratio. In other words to say that at the part of division level study, approximately the proportion of increasement or decreasement was observed inbetween the average number of incidences of Heat Stroke disease.

In Rajasthan, If we correlate the observations at the part of distribution of Heat Stroke incidences than the results of study can be explained in a very simple nature that if a any Division of Rajasthan. It is very difficult to adjust and escape life forms in harsh conditions during dry and hot winds i.e. from impact of Loo in summer season may be the people even in the city environment or may be the animals in rural

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environment, it is very common just to victimised from the Heat Stroke Disease during Loo days in different areas of Rajasthan.
1. INTRODUCTION-Heat stroke, the disease falls under the part of Non-communicable Diseases. Heat stroke disease is quite different from coronary Heart or Cardio-vascular Heart stroke. Heat stroke is the disease which is the result of environmental factors, specially by the hot and dry winds in summer season.

Patients which experienced the superficially influenced by the heat stroke disease and such patients are reported in out door patients ward and they generally cure with a normal treatment. Where as sometimes due to intensive nature of heat stroke disease characteristic then the patient has to be admitted in the ward of indoor patients.

In summer season specially in the month of April, May and June the number of percentage increases at the part of in door patients out of total number of out door patients increases during three month of summer season the ratio of number of in door patients increases.

Generally more number of indoor patients may be found in the fragile area of western Rajasthan. The observations in the data of tables of in door patients and death cases that over all more number of indoor patients are found in two districts of Thar desert where origin of hot winds or Loo take placed but due to spread of the waves of hot winds in northern and eastern side of Rajasthan, the author observed the more number of in door patients and death cases were observed in the above mentioned directions.

Heat stroke disease is a seasonal disease and it occurs in some days in Rajasthan and these days are counted as "Loo days". It was found that in three months of summer season 70 percent days are known as 'Loo' days. During Loo days the sudden increase in number of out door patients and in door patients take placed.

The person as an indoor patient may caused to death case due to severe ness of the patient of this disease. Different Division of Rajasthan, naturally has depends number of indoor patient and their different number of death cases. Hence there is no similarity in the number of indoor patient and death cases in six Divisions of Rajasthan.

Some times in summer season out door patients are observed and cured by a general treatment from health center, some times indoor patients are not found in any particular year for a particular Division,

some times number of indoor patients are found in the health center but among them no death case reported in a particular year of a particular Division.

In this way data of Division-wise indoor patients and death cases by heat stroke disease is found with more variation. The author recorded three years data i.e. 2016, 2017 and 2018 of indoor patients and death cases at Division level.

Now we are going to describe Division-wise position of number of in door patients and number of death cases for the three years period collection of data from different health center specially from district health office" (C.H.M.O.) of each district head quarter.

2. INTRODUCTION OF THE RESEARCH ARE-



Rajasthan state is located in the north-west direction of our country. It neighbouring states in north is Panjab, Gujrat and Madhya Pradesh are located in the south, Utter Pradesh and Madhya Pradesh are located in the east direction. From geographical extension point of view the state lies from 23°3' to 30° 12' north latitude and from 69° 30' to 78° 17' east longitude. In north-east of the state centrally governed Delhi State is located with new Delhi as a capital of our country. In south of the state, the "tropic of cancer" passes through Banswara and Dungarpur districts at 23° 30' north latitude the state has shape of an

uneven letriangle the State has different kinds of topographical features, physical conditions and types of climate.

3. METHODOLOGY :

(i) On the basis of at least 3 years. data records for the number of incidence of Heat Stroke disease following study theme would be exercised with their suitable methods and the appropriate formulae would be used for the incidence for the area under study.

(ii) The suitable methods would be - used for analysis study work at Divison-level to detect the change in nature of occupations with the change in number of incidence of Heat stroke disease in Rajasthan at least for the period of a decade.

These all above mentioned three aspects of the study are presented of incidences of Heat Stroke disease for the area under study. One can visualize very well by going through the datas of above mentioned aspects of the study of distribution of Heat Stroke Patients in Rajasthan.

4. OBSERVATIONS :

At State Level Distribution of Incidences of Heat Stroke Disease:-

In number of the death cases in 2016 the Jaipur Jaipur Division ranks at first place (11) and it is followed by Ajmer Division (10) and the Kota Division stands at third place by keeping only three death cases. Bikaner and Jodhpur both Divisions show not a single death case in the particular area where as Udaipur Division shows only one death case in 2016 it is worth while mention here the year 2016 leads other years of study period i.e. 2017 and 2018 in the aspect of death cases. Thus the year 2016 has maximum number (25) of death cases during the course of three periods.

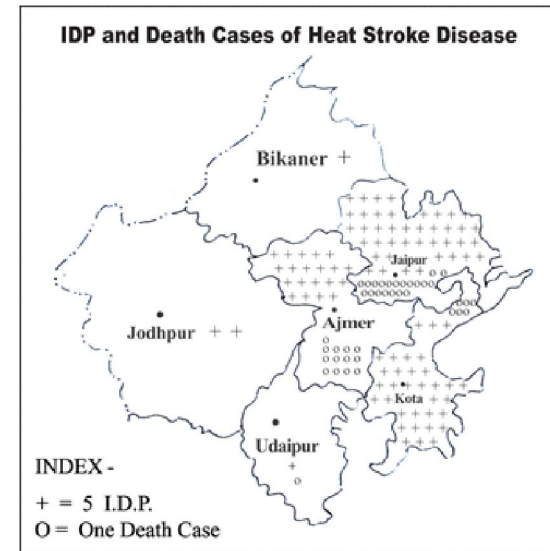
The Division-wise distribution of in door patients and death cases in the state of Rajasthan for the year of 2017. The comparative picture of six Divisions of Rajasthan in this aspect. There were 135 total in number of in door patients in Rajasthan in 2017 in which alone Jaipur Division covered 64 number of in door patients and thus ranks at first place which is followed by Kota Division at second place (35 in door patients) and Ajmer Division ranks at third place by keeping 28 number of in door patients. Udaipur Division has not a single number of indoor patients in other words it is free from the entry of in door patients in 2017 where as in 2016 Bikaner Division was free from the entry of number of in door patients.

Jodhpur and Bikaner Divisions contribute 6 and 2 in the number of in door patients. In this year of 2017 the total number of death cases were reported 10 in which two Divisions contribute out of 6 in Rajasthan respectively. In the year of 2017 in number of death cases Jaipur Division ranks at first place (7) and it is followed by Ajmer Division (3) at second place in Rajasthan. In this particular year Kota Division, Bikaner Division, Jodhpur Division and Udaipur Division remained free from any sort of death case. Among three years the year of 2017 ranks at second place after the year of 2016 in number of in door patients as well as death cases.

Division-wise data of distribution of in door patients and death cases in Rajasthan for the year of 2018 year has total number of 109 number of in door patients in which Kota Division ranks at first place by keeping 68 number of in door patients and Jaipur Division ranks at second place by keeping 33 number of in door patients. It is very interesting to mention here that in earlier years of 2016 and 2017 Jaipur Division was at first place.

In 2018 Bikaner Division shows no contribution at the name of Number of in door patients where as Udaipur Division contributes 5 number of in door patients and Jodhpur Division contributes by only 1 in door patients in the total number of in door patients of Rajasthan state. In the year 2018 total number of death case were reported 5 in which Kota Division stands at first place by keeping three death cases and Jaipur Division at second place by keeping only 2 death cases. It is worth while to mention here that Jaipur Division was at first place in number of death cases in the year of 2016 and 2017. Ajmer Division, Bikaner Division, Jodhpur Division and show not a single death case in the year of 2018. In comparison with other years of study period it is found that the year 2018 stands at third place after the year of 2016 and 2017 at the part of number of in door patients and death cases Division wise in the state of Rajasthan.

Thus these Data cover a better presentation of comparative account of the years 2016, 2017 and 2018 at state level. Hence in conclusion at the part of number of in door patients and death cases in Rajasthan the year 2016 ranks at first place 2017 ranks at second place and 2018 due to its lowest number of ranks at third place.



It is very difficult to adjust and escape life forms in harsh conditions during dry and hot winds i.e. from impact of Loo in summer season may be the people even in the city environment or may be the animals in rural environment, it is very common just to be victimised from the Heat Stroke Disease during Loo days in different areas of Rajasthan.

Map shows the Division wise distribution of in door patients and number of death cases from heat stroke disease in the state of Rajasthan. It is a combined picture of three years period from two thousand two (2016 to 2018). It is the map of six Divisions of the state namely Bikaner Division, Ajmer Division, Jodhpur Division, Jaipur Division, Kota Division and Udaipur Division. It is a Division wise comparative account which are geographically distributed at the part of number of in door patients and death cases. In door patients it is shown by the symbol of cross (+) and death case by the symbol of circle (O). On the basis of the distribution of these symbols one can assess that which Division of Rajasthan is more influenced by the disease that more concentration of distribution of cross symbol in any Division means more number of in door patients where as if the concentration of circles is observed in any

Division means more number of death cases happened in that particular Division.

By going through the reading of the map the author can say that the Division of Bikaner comparatively shows lowest contribution in this aspect and then after it is followed by Jodhpur Division, Both these Divisions are with the symbol of in door patients (+) and not a single death case symbol is shown for the above mentioned Divisions.

It is very surprisingly to mention here that the cradle land of hot winds (Loo) is located in western Rajasthan where favourable conditions are found for the origin of hot winds (Loo) but in western Rajasthan three Divisions– Bikaner, Jodhpur and Udaipur show the less impact of number of in door patients and death cases. These hot winds (Loo) blow from western Rajasthan to eastern Rajasthan. Hence the hypothesis of the author is that the persons which are living in eastern Divisions are more influenced by the Heat Stroke disease whereas the persons living in western Rajasthan Divisions show less impact of the disease.

RESULTS :-If we correlate the observations at the part of distribution of Heat Stroke incidences then the results of study can be explained in a very simple nature that if in any Division of Rajasthan.

It is very difficult to adjust and escape life forms in harsh conditions during dry and hot winds i.e. from impact of Loo in summer season may be the people even in the city environment or may be the animals in rural environment, it is very common just to be victimised from the Heat Stroke Disease during Loo days in different areas of Rajasthan.

In brief the author can state that the repetitive occurrence number of a disease in a particular area for a time period the percentage of frequency can be determined.

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