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Awareness on Leptospirosis: An Initiative towards better healthcare

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ABSTRACT:

A program with a survey based approach to know about the awareness and spread the basic information to create awareness in people on various aspects of Leptospirosis, like causative organism leptospira, contingency, basic management options and to know if any of them have seen or observe any cases of Leptospirosis which might be helpful in estimation of this disease burden in a Village of Kharsad of city Navsari, Gujarat. A properly designed questionnaire and disease awareness leaflet in local language under the guidance of clinical pharmacist and doctor prepared and dispensed. This program is an initiation to support government in creating awareness to boost up the health care for that communication skill is a key factor with person to person communication to spread awareness we have received 100 fully filled forms and provided each of them an awareness leaflets on disease. To carry out analysis of results percentage analysis method used. Only 27% people were aware about the disease even though the main occupation is farming where this kind of awareness will become must. 25% people were about its causes and contingency and management of disease. The good thing of in program is 100% were interested to know and all of them ready to spread awareness about the disease to others.

KEYWORDS: Leptospirosis, Health care awareness, leptospira, contingency, communication skill

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INTRODUCTION:

India is known to be endemic to numerous infectious diseases. The infectious disease outline of India is changing because of increased human environmental interactions and climate change. There are also predictions of drastic growth in infectious and zoonotic diseases in India.¹ In order to be able to address this burden effectively, a true estimate of the trouble of infectious diseases is essential.² Since 1980's the disease has been reported from various states during the monsoon months in mini epidemic proportions. Cases have been reported from Kerala, Tamil Nadu, Gujarat, Andamans, Karnataka, Maharashtra, Orissa and Bihar.^{3,4} In the ensuing article, the survey was carried out in village of Navsari district about awareness in the people about one of the infectious disease Leptospirosis as the 90% of the people is farmers.

Genus *Leptospira* spirochetes is mainly of two species: one is *Leptospira interrogans* comprising all pathogenic strains, and other is *Leptospira biflexa*, which contains the saprophytic a non-pathogenic strain isolated from the environment.⁵ Identification and classification of species of *Leptospira* is important because of different host specialties. Leptospirosis is the most common zoonosis affecting many species of wild and domestic animals like rodents, wild mammals, dogs and cats. The most frequent hosts are rodents, especially the common rat belonging to species *Rattus norvegicus*.⁵ Leptospirae are bacteria which can be either pathogenic nature like it is having the potential to cause disease in animals and humans or saprophytic like free living and usually considered not to cause disease.¹ In this and other reservoir kidney

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species leptospira organism persist indefinitely in the convoluted tubules of the kidney without causing disease and are shed into the urine in massive numbers.

In its mild form, Leptospirosis symptoms like influenza-like illness with headache and myalgia are commonly seen. Where as in severe Leptospirosis condition jaundice, renal dysfunction, and hemorrhagic diathesis can be occurred which is known as Weil’s syndrome.^{6,7} In the first or septicemic phase of leptospiral attack fever, chills, headache, myalgia, skin rash, nausea, vomiting, conjunctival suffusion, and prostration are commonly seen clinical features. The fever may be high and remittent reaching a peak of 40°C before defervescence. The characteristic is suffusion of conjunctiva and usually appears on the third or fourth day. Whereas myalgias usually involve the muscles in the calf, abdomen, and para-spinal region of the body and it can be severe. The skin manifestations seen in mild Leptospirosis might include transient urticarial, maculopapular, and erythematous. The first phase lasts 3- 9 days followed by 2-3 days of defervescence, after which the second or “immune” phase develops. The immune phase is characterized by leptospiruria and correlates with the appearance of immunoglobulin M antibodies in the serum. Leptospira than settle in glomeruli and are eliminated from all sites in the host except eye and perhaps brain, where they may persist for weeks or months. Fever and earlier constitutional symptoms reoccur in some patients, and signs of meningitis, such as headache, photophobia, and neck stiffness may appear.^{8,9}

Leptospirosis is more common in tropical areas of the world. Internationally, it is estimated that 7-10 million people get Leptospirosis every year. It is difficult to estimate precisely how many people die from Leptospirosis because many cases occur in parts of the developing world where causes of death are not routinely reported. It is anticipated that the number of cases of Leptospirosis will continue to increase in the future as a result of global warming and the expected increase in flooding. The preventive measures taken in Leptospirosis is to avoid contact with potentially infected animals and potentially contaminated soil and water as usually farmers are directly in exposure to contaminated soil and water so they might be more prone to be affected by the infective disease.

Methodology:

A well designed questionnaire and leaflet about disease was prepared with the help of clinical pharmacist and doctor questionnaire was designed. The primary intention of the study is by communicating general population to assess and spread awareness on the disease. In the study we have

dispatch 100 awareness leaflets and received 100 fully filled forms on awareness study. A percentage analysis was done for the evaluation of the results.

RESULTS:

From the study it was evaluated that there was only 27% awareness on the disease in the village from which only 25 % were aware about the causes and contingency of the disease and its basic management. 57% male and 47% were female involved in the study which shows equal involvement of female in awareness program. Only 47% people were graduate. The basic source of information about the disease was 32 % government employee while 31% from news paper. Nobody has seen any case of disease in their surroundings which might be helpful in assessing the burden of the disease in the village area. The following results indicate the awareness and willingness of people in village area about the disease awareness program.

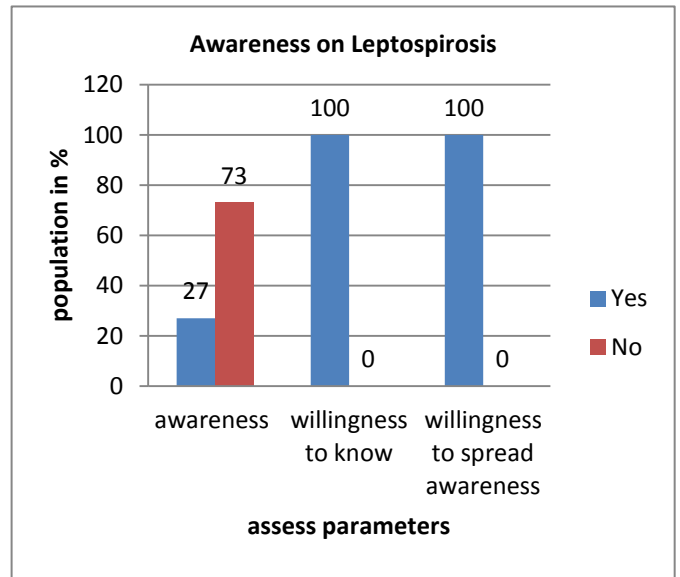


Figure1. Result of willing and awareness of participants involve in the study.

CONCLUSION:

From the study it was concluded that 27% is a low percentage of awareness in people which needs to be improved by conducting such kind of awareness program because the problem is lack of awareness which can be overcome as here people are eager to know about the current disease of surrounding and what they want is a proper communication which a good health care system team can provide time to time to make them aware about the most common problems regarding the disease and its basic information. This is just an

initiative starting with this village as if one health care team target one village for awareness about various disease and their general information we can design a better future for our country health care department.

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