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Awareness on Sickle Cell Anemia in Higher Secondary School Students of Tribal Area: An Initiative

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ABSTRACT:

The survey was designed to investigate about the awareness of higher secondary school students belongs to tribal area about awareness, the inheritance, symptoms & complications and management and government facility for the sickle cell anemia. This study was also determine whether or not students likely to be genetically affected by sickle cell anemia are more or less aware. 197 students of the higher secondary school were assessed on their general awareness about sickle cell anemia and pamphlets on awareness were distributed to make them aware and spread the awareness to others too. Percentage analysis was used to evaluate the results. 40% students were aware about the Sickle cell anemia and know it is Autosomal disease and 32.5% know how it is occurs and its symptoms and complications. Where 4% were aware about its treatment as they were the sufferer of sickle cell anemia and only 0.5% knows the government facility for Sickle cell anemia. In this study 50% were boys from which 11% aware and from 50%o girls 26% aware. 100% were interested to know about the disease and were ready to spread awareness on the disease in others. The scarcity of sickle cell anemia research exemplifies how our society fails to view sickle cell anemia as a serious illness. Information and awareness-related activities are important component of effective public health strategies for reducing the morbidity and mortality among people with sickle cell anemia. Without awareness and a public protest for a revolution, sickle cell anemia will continue to be a silent killer to young people around the world.

Keywords: Sickle cell anemia, awareness, Sickle cell anemia in Students of Tribal

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Introduction:

Sickle cell anemia is an autosomal recessive disorder with phenotype variation. As some sickle cell patients have frequent vaso-occlusion and complications while others have little affected by sickle cell and have normal life. It seems to be a global health problem that presents major challenges to our health care systems. There is no doubt much need for more public education, counseling and awareness on Sickle cell anemia in the India especially the tribal parts of the country.^{1, 2} In comparison with other chronic diseases and Hemoglobinopathies, sickle cell anemia remains one of the least understood and confusing medical conditions by health care workers and the general population.³

What Causes Hemoglobinopathies?

Hemoglobin disorders are inherited from parents in much the same way as blood type and other physical traits. Sickle-cell anemia can occur only when both parents have carrier genes for the particular condition. A child who inherits two of the same carrier genes - one from each parent - will be born with the sickle cell

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disease. However this is not unavoidable: a child of two carriers has only a 25% chance of receiving two carrier genes and developing the disease, and a 50% chance of being a carrier only. Most carriers lead completely normal and healthy lives without too much complication.⁴

How Can Hemoglobin Disorders Be Reduced?

Hemoglobinopathies can be efficiently reduced through a strategic balance of disease management and prevention programs. Sickle-cell anemia is an autosomal recessive type of disorder so it cannot be cured; however the condition and symptoms can be managed by: High fluid intake & Healthy nutritional diet and Folic acid supplementation & Pain-killer medication. Prophylactic Antibiotics are used for preventing infections.^{5, 6} The most cost-effective strategy for reducing the burden of Hemoglobinopathies is to complement disease management with various preventive programs. Inexpensive and reliable blood tests can identify couple at risk for having affected children. This genetic screening is really helpful before marriage or pregnancy, allowing couples to discuss the health of their family. Subsequent genetic counseling informs carriers of sickle cell anemia that is risks that may be passed along to their children and the treatment might be needed, if affected by a hemoglobin disorder. Prenatal screening of any genetic diseases raises precise ethical, legal and community issues that require appropriate consideration.^{5, 6}

Activities for Preventing & Controlling Hemoglobinopathies:

Increase awareness in the community of the global burden of sickle cell anemia. Try to promote reasonable access to the health services in community sector. Provide scientific and technical support to the areas for the prevention and management of the sickle cell anemia. And last but most important is to promote and encourage and support research work to improve quality of life for those affected.

One of the research on sickle cell anemia concluded that between 19-30 years age individuals are having lack of basic understanding of the sickle cell anemia.⁷ So the current program was an initiative to educate students from their schooling or teen age period where they can have basic knowledge and awareness about the most prominent conditions of sickle cell anemia. So the purpose of the study is to spread awareness in students of tribal area who are at the risk of having this blood disorder.

Methodology:

A well designed questionnaire and leaflet about disease was prepared with the help of clinical pharmacist. Participants' school children were asked to answer the question which

matched up with their perception. A survey was carried out in one of the higher secondary school of tribal area named R.K.Patel Sarvajani Vidyalaya, Ronvel, Valsad district as an initiative to spread awareness about the sickle cell anemia. Percentage analysis for each question was carried out.

Result:

40% students were aware about the Sickle cell anemia and know it is Autosomal disease and 32.5% know how it is occurs and its symptoms and complications. Where 4% were aware about its treatment as they were the sufferer of sickle cell anemia and only 0.5% knows the government facility for Sickle cell anemia. In this study 50% were boys from which 11% aware and from 50%o girls 26% aware. 100% were interested to know about the disease and were ready to spread awareness on the disease in others.

Discussion:

The scarcity of sickle cell anemia research exemplifies how our society fails to view sickle cell disease as a serious illness. Information and awareness-related activities, therefore, should be an important component of effective public health strategies for reducing the morbidity and mortality among people with sickle cell anemia. Without awareness and a public protest for a cure, sickle cell disease will continue to be a silent destroyer to young men and women around the world.

Conclusion:

A need exist for more sickle cell anemia screening and counseling and education among the teen age students so that basic understanding regarding disease can be helpful to them. Counseling and educating students from this age in this area can be so worthy to spread awareness and control over sickle cell anemia. So, regular awareness program in tribal areas must be done to spread awareness in students who are the future of the country.

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