Study of Factors Responsible ror Crisis of Sickle Cell Anemia and it's Medical Management at Dr. P.D.M. Medical College, Amravati (MS)

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Abstract

Study of factors responsible for crisis of Sickle Cell Anemia and Its medical management at Dr.P.D.M.Medical College,Amravati.Introduction –1. In the world's population 5% population carries genes responsible forHemoglobinopathies.2. Sickle cell anemia is a group of heredieatary disease characterized bytransformation of red cell into sickle shape on deoxygenating. It's commonin people whose ancestors come from Sub Saharan Africa, India, countries.Cyprus is a country where Sickle Cell Anemia was very common butbecause of counseling its prevalence has been reduced almost to zero.3. Poor prenatal diagnostic facilities are available to detect Sickle CellAnemia and no marriage Counseling facilities are available in India.4. Sickle Cell Anemia is more prevalent in Vidarbha region of Maharashtra,it's more prevalentin backward communities particularly in schedule caste,schedule tribes and other backwardcommunities. In eastern part of Vidarbha region i.e. Chandrapur,Ghadchiroli, Wardha,Nagpur and Amravati are the districts where more no.of cases are found.5. Chronic Anemia(Hb level around or <8gm/dl),painful crisis due tovasoocclusion and Acute Chest Syndrome are the common symptoms maylead to organ damage, susceptibility to infection, growth failure,etc.Manifestation of Sickle Cell Anemia are unpredictable and variabletherefore there are no fix guidelines and specific drugs are available formanagement and treatment of crisis.6. Though the disease is very common it is neglected and comparativelyless medical literature is available. There is no National Policy in availablein India for treatment and prevention of disease.7. Use of Hydroxyurea which has shown good result in crisis is less usedotherwise crisis is treated symptomatically.8. There are many factors which precipitate the crisis in Sickle Cell Anemiaso to study these factors is the main aim of this study and to educatecounsel and prevention is also a part of this study.

Objectives

1. To study precipitating factors associated with crisis.
2. To study various complications in crisis of Sickle Cell Anemia patients.
3. To study complications immediate after acute crisis of Sickle Cell Anemia.
4. To study residual complications of Sickle Cell Anemia.
5. To educate and counsel the patients and their relatives about prevention of crisis.
6. To give knowledge to Sickle Cell Anemic patients and their relatives about the role of hereditary factors present in the disease and its prevention.

Materials and Methods

This study will be carried in Dr .P. D. M. MedicalCollege and hospital as well as District Government General Hospital andwomen hospital, Amravati. This study will be carried on during a period oftwo months and approximately 100 to 150 cases will be included as samplesize. The study will be conducted after obtaining consent from each patienton a separate consent form after explaining the purpose of study to them.Detailed history of patients admitted with crisis will be taken their chiefcomplaints will be recorded as per the proforma. A thorough clinicalexamination will be done of the all the cases.Inclusion Criteria : The study group of cases includes, patients admittedfor crisis of sickle cell anemia and their relevant blood investigation will bedone. The patients admitted in above three hospitals in the given period oftime will be included in this study.Choice of Patient: Positive Sickling test will be the criteria for choosingpatient. Investigations which will be studied of patients:

- Sickling test
- CBC(Complete Blood Count)
- Urine analysis
- Any other test if necessary or prescribed by attending physician orconsultant Doctor. The necessary information required for this study will be collected as perproforma.

Result and Conclusion

1. Involvement of diseases is most common in Buddha peoples.
2. Acute complications of CVS system is most common cause of administration to hospital.

3. Among CVS complications Angina pectoris is cause for hospitalization.4. Fever and heavy work were the most common precipitating factors associated with acute complications.

5. Cardiac complications were found higher in patient above 45 years of age.

6. More than 50% of patients had reported positive family history for Sickle Cell Anemia.

7. Chest Pain, Other (pain in hand and foot,backache,etc), Breathlessness were the most common symptoms leading to hospital visits.

8. Most common ECG findings are Angina Pectoris and Heart Failuare.

9. Just 1% mortality was observed in patients admitted in hospitals for acute complications.

10. Duration of stay is found to be between 02-04 days

Implications

The study is practically important to obtain the knowledgefor various factors responsible for Sickle cell crisis and its medicalmanagement further it will be important for education of patients andrelatives regarding the genetic predisposing factors. It will also giveus an opportunity to know about complications occurring during crisis andorgan damage during the period.

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