Minor Research Project submitted to UGC

**TITLE OF THE PROJECT**: - A Study On Prevalence Of Sickle Cell Anemia In Pregnant Women And Children ( 0-12 Year)And Their Socioeconomic Status In Nagpur And Wardha District

**DESIGNATION** :- Assistant Professor

**DURATION OF THE PROJECT**: - 2 Years

**NAME OF INVESTIGATOR** :- Dr. Kalpana C. Kulkarni

**SUMMERY OF FINDINGS**

The present study is a small attempt to find out the magnitude of sickle cell disorders in population of Wardha and Nagpur District, Maharashtra. In the present study sickle cell disease was found to be highly prevalent in the tribal population of Boudha , Pardhans, Govaris and less prevalent in Banjaras , Gond ,Matang etc and absent in Kunbi,Komti thakur. The prevalence of sickle cell anaemia in Wardha district was found 8.44% and that of Nagpur district was 6.89%. in pregnant women prevalence of sickle cell anaemia in Wardha district was found 3.70% and that of Nagpur district was 3.33%.

The conclusion that emerges from the present investigation are that majority of individuals tested for prevalence of SCA have 4 to 6 members in their family. prevalence of SCA may be observed in individuals belonging to joint family as well nuclear family educational qualification of individuals tested for sickle cell anemia is very low, however education is important to understand the disease and awareness about the disease individuals of all income groups are prone to sickle cell anemia but prominently in the income group of 2001 to 5000 majority of individuals in study area are non vegetarian.

BMI values were also found to be significantly lower among the male and female children than the normal children. Age wise distribution of different anthropometric measurements showed significant decreased mean values of all the measurements. In the present study, it has been shown that as a group, children with sickle cell disease weigh less and are shorter than the comparable normal controls.

Individuals suffering from sickle cell anemia have shown symptoms like jaundice, severe pain in stomach, arm, legs and stroke, insomnia, infection. Symptoms of paleness, restlessness, fatigue and rapid heart rate is also noticeable.

Females found positive for sickle cell anemia recorded very low levels of hemoglobin female suffering sickle cell anemia in the study area are hemoglobin deficient. Male suffering SCA in the study area is hemoglobin deficient. Females of all age groups suffering from sickle cell anemia shows decreased systolic blood pressure than non sickler females. The males of all age groups suffering from sickle cell anemia shows decreased systolic blood pressure than non sickler males.

Females of all age groups suffering from sickle cell anemia shows decreased diastolic blood pressure than non sickler females. Males of all age groups suffering from sickle cell anemia shows decreased diastolic blood pressure than non sickler males.

Individuals of all age groups suffering from sickle cell anemia shows decreased po2 level than non sickler individuals. If the level of po2 is further decreased there may be need of blood transfusion the individuals of all age groups suffering from sickle cell anemia shows increased heart rate than non sickler individuals.

Study about pregnant women reveals that female suffering Sickle cell anemia in the study area are hemoglobin deficient, shows increased systolic and diastolic blood pressure than non sickler females. Decreased po2 level in sickler pregnant women than non sickler individuals was observed. if the level of po2 is further decreased there may be need of blood transfusion. Increased heart rate was observed in sickler females as compared to non sickler pregnant women