

## Information of Sickle Cell Disease (SCD)

### What is Sickle Cell Disease (SCD)?

SCD is an **monogenic autosomal recessive disorder**. It is caused by a mutation in  $\beta$ -chain of hemoglobin at position 6, Glutamic acid is replaced by valine, which leads to the sickle shape of RBC. SCD is characterized by vaso-occlusive crisis, widespread acute and chronic organ damage and reduced lifespan.

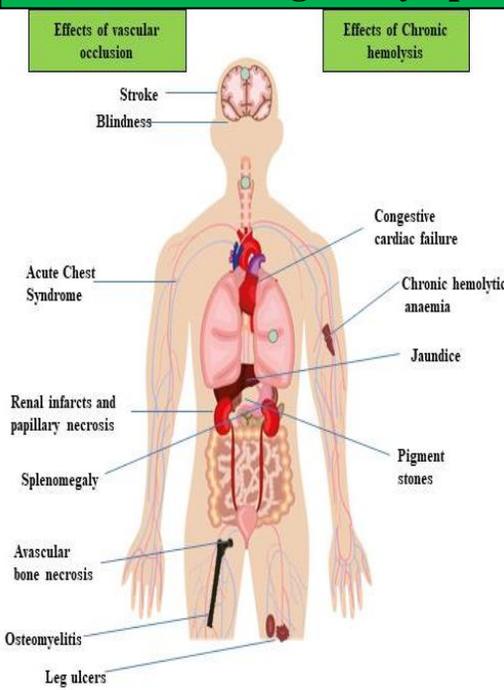


Normal red blood cell



A sickle-shaped red blood cell of sickle cell disease

### Sign & Symptoms

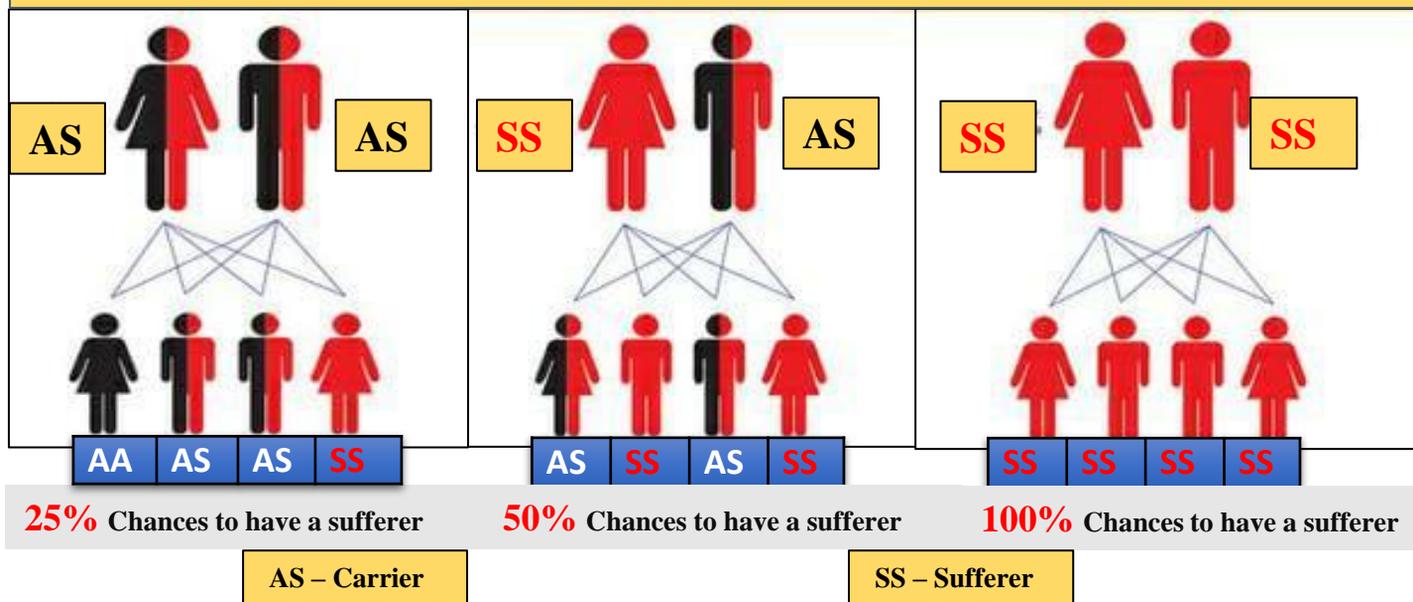


- Anaemia
- Fatigue
- Joint pain
- Hepatomegaly
- Splenomegaly
- Jaundice
- Abdominal pain
- Swelling of hands, feet
- Infections



### Inheritance

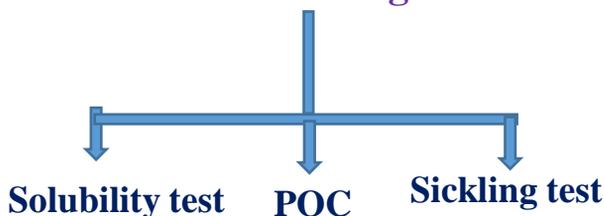
Sickle cell disease (SCD) is genetically inherited in following manner



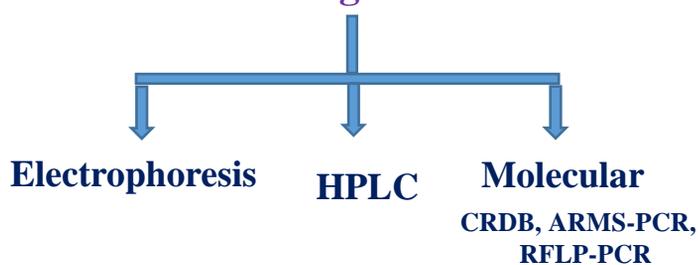
### Diagnosis

Detection of sickle cell disease is done by following methods

#### 1. Screening



#### 2. Diagnosis



### Treatment & Management

- Folic acid, Hydroxyurea are prescribed after doctor consultation
- Consumptions of green-leafy-vegetables and plenty water, regular meditation, yoga.
- Routine doctor's consultation.

### Prevention

- Adolescence counselling
- Pre-marital counselling
- Post-marital counselling
- Pre-natal diagnosis