

Newsbites

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Fighting Sickle Cell

Definition:

Sickle Cell Disease (SCD) is a hereditary disease in which red blood cells form an abnormal crescent shape preventing it from carrying oxygen easily.

Sickle Cell Anaemia is the most common type of SCD. It is caused when the child inherits two genes that produce abnormal haemoglobin called 'S'. The less common types of SCD are SC disease (where one gene produces 'S' haemoglobin and the other produces 'C' haemoglobin) and S-Beta-Thalassemia (where one gene produces 'S' haemoglobin and the other produces Beta-Thalassemia haemoglobin).

S-Sickle cell haemoglobin

C-Unstable haemoglobin that precipitates in red blood cells (RBCs) to form crystals (1)

Beta-thalassemia-Involves decreased production of normal adult haemoglobin (Hb A), soon after birth until death. (1a)

Incidence:

In India, 10% of the entire population is affected by SCD and 40% of them are carriers. It is common in South and Central India. (2)

The disease was first observed amongst the tribal groups in South India but prevalence is now high in both tribal and non-tribal populations. (3)

Causes:

Red blood cells contain haemoglobin that carry oxygen from the heart to the organs/tissues and bring carbon dioxide back to the lungs. In SCD, haemoglobin is defective and they cluster together to form rod like structures. These rod like structures cause red blood cells to stiffen and become sickle shaped thus affecting the oxygen carrying capacity.

Symptoms:

Few symptoms of the disease are attacks of abdominal pain, bone pain, delayed growth/puberty, breathlessness, organ damage and other severe infections.

Treatment:

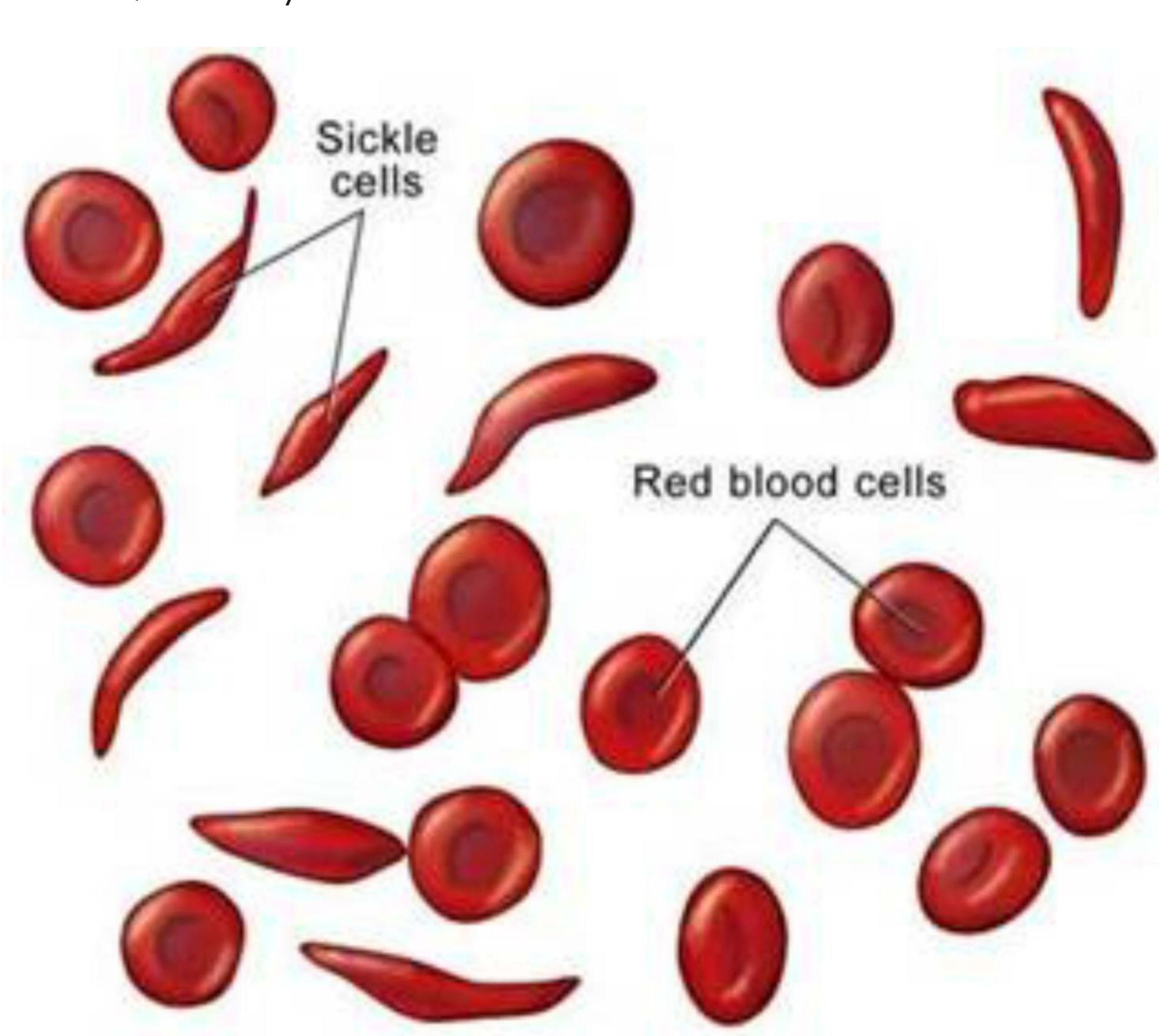
In case of SCD, a complete cure might not be possible. Hence treatment is almost always focused on relieving the disease symptoms and preventing complications. Children diagnosed with the disease are treated with anti-biotics and

given vaccinations to prevent infections. Blood transfusions and bone marrow transplants are also used as treatment options. (4)

Treatment using cord blood stem cells:

Cord blood stem cells are being successfully used for the treatment of SCD. It helps in improving the quality and life expectancy to a large extent. These cells are immature and hence do not require a high percentage of match with the recipient, unlike bone marrow stem cells that require a 100% match.

In 2013, the first un-related cord blood transplant for treatment of sickle cell disease was successfully done in Pune. Two Nigerian children who had been suffering from severe joint pains and breathlessness, due to sickle cell disease, were given a new lease of life with cord blood transplant from Indian donors. These children have been symptom-free since the transplant and can look forward to a normal, healthy life. ⁽⁵⁾



References:

- (1) http://emedicine.medscape.com/article/200853-overview
- (1a) http://www.medicinenet.com/beta_thalassemia/article.htm(2) http://www.211ct.org/informationlibrary/Documents/

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- (2) http://www.211ct.org/informationlibrary/Documents/ SICKLECELLDISEASE.asp
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- topics/topics/sca/treatment.html

Celebrating World Sickle Cell Awareness Day



Celebrate

World Sickle Cell Awareness Day

with bobycell on June 19th

Grab this opportunity to ensure that your baby is fit and healthy.

Complimentary Sickle Cell Anaemia Testing and New Born Screening for the entire month.

Events

Mummy & Tummy ANC sessions continue to receive overwhelming response from across India.









Mother's Day Celebrations

This Mother's Day on May 11, 2014, Babycell offered a special treat to all the expecting parents in Ahmedabad through Mother Care Forum. The forum was a perfect blend of educative segments by renowned experts and fun sessions. The highlight of the day was the spell binding musical dance performance around 'save the girl child' theme. Belly dancing for pregnant women, which is an integral part of the Mother Care Forum, got the mommies-to-be shaking to groovy tunes. There were smiles all around as to-be-parents were given special gift hampers from Mom & Me.









*Panel of eminent speakers. Ms. Bhaval Dawda, Dr. Cecil Kanuga, Dr. Chirag Amin and Dr. Raman Patel.