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TEMPERATURE MAX 31 | MIN 18 | HUMIDITY 80% | FORECAST GENERALLY CLOUDY SKY | SUNRISE 0634 HRS | SUNSET 1756 HRS | SENSEX 19,229.26 | NIFTY 5,851.50 | GOLD ₹31,173.00 / 100

YOU



HEALTH TIPS

Include 3/4 cup (175 mL) of chickpeas in your diet each day to lower LDL (bad) cholesterol levels, and reduce the risk of heart disease

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RISE OF THE SICKLE

Sickle cell disease was uncommon in India till recently, but latest statistics reveal that at least 10% of the population is affected. Know the disease that could lead to serious conditions if untreated



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It's a condition – but it can be dealt with and those who have it can still lead a happy life. Sickle cell disease was uncommon in India till recently, but latest statistics, based on white papers collated from different research institutes, say 10 per cent of the Indian population is affected along with 40 per cent who are carriers of this life-threatening disease. Additional statistics show that an infant has 9.4-22.2 per cent chance of being affected with this condition.

Sickle cell disease is a genetic blood-related disorder. "It's a genetic mutation and there is no external source from where a child can be affected," says Dr Sunil Eshwar, obstetrics and gynaecology consultant, Divakar Global Hospital. "If either of the parents is a carrier, then the child becomes the carrier. But if both parents are carriers, then the child definitely gets affected." It is a disease common in African and American countries, but the number of people being affected by it in India is rising slowly.

NATURE OF THE BEAST

The disease is essentially a condition when, during blood circulation, the oxygen is released but a few parts of the body are deprived of oxygen. "The RBCs turn into sickle-shaped cells during respiration in a person suffering from this disease and these

RBCs cannot negotiate the small arteries," explains Dr Eshwar.

"The cells cannot pass through the arteries and block or slow the flow of blood. This could lead to no blood flow to parts of the brain, eyes or other organs. When this happens, the person could get a stroke if the brain is affected or it could lead to blindness if the eyes are not receiving enough blood," he added.



QUICK FACTS

- ◆ The RBCs turn into sickle-shaped cells during respiration
- ◆ These cells cannot pass through the arteries and block or slowdown the flow of blood
- ◆ The symptoms of the disease are evident within 120 days of birth
- ◆ If an infant shows symptoms of anaemia, swelling of joints, feet and hands then the child could be affected by sickle cell disease
- ◆ People afflicted with sickle cell disease should not travel by air
- ◆ Replacing stem cells can help cure the disease

The symptoms of the disease are evident within 120 days of birth. "If an infant shows anaemia within 120 days, then the condition has to be investigated to find out if it is the sickle cell condition," says Dr Eshwar. But in a few babies, the symptoms don't show up even after a year. That's because the residuary foetal haemoglobin in the baby's body helps it with immunity and survival because of easy blood flow. "Within the first two years of birth, if the child shows Dactylitis – swelling of hands and feet joints with severe pain, then you need to be worried; it is one of the early symptoms," says Dr Nisar Malik, paediatrician, Lady Hospital.

Despite the irregular flow of blood, doctors say the child could lead a normal life with some precautions. "Ideally, such kids need to be given a lot of fluids so that the flow of blood is unrestrained and they need to stay hydrated. If dehydration occurs, then that leads to sicklisation which in turn will lead to the RBCs becoming sickle shaped," says Dr Malik.

Jaundice, chronic or acute anaemia, repeated infarcts – pains in joints, infections and fever too are treated serious conditions. Though they can lead an active life, they need to keep a check on physical activities. "Intervals between physical activities are a must. Taking rest is advised," adds Dr Malik. Oxygen in the atmosphere is a must for the RBCs to work normally, so air travel should be avoided for such patients. "The oxygen saturation – the levels of oxygen are low up in the air and the patient's

RBCs will immediately react, turning sickle shaped, leading to breathlessness," says Dr Eshwar.

DEALING WITH THE DISEASE

Taking precautions and monitoring the child all the time is a challenge. The only cure for this condition is replacing the stem cells. Finding the perfect match is very rare with just one in 30,000 people being a probable match for the child. To avoid such situations, stem cell banking is an option at the time of delivery. Immediately after the child's birth, about 100ml of the blood from the umbilical chord is collected into the blood bank.

"The stem cells are then frozen below zero degrees and stored for up to 20 years," says Dr Eshwar. Though there are just a few stem cells banks that have come up in India, the stem cell banking procedure has been made affordable.

"The cost of the procedure is Rs 5,000. With growing awareness, parents are now voluntarily opting for expanded genetic screening from private laboratories and hospitals," says Satyen Sanghvi, chief scientific officer, Baby Cell. "Many reputed hospitals in the city like Apollo, Manipal, Fortis and others have introduced this procedure. There are many medical organisations like the Federation of Obstetric and Gynaecological Societies of India (FOGSI) Indian Academy of Pediatrics (IAP) and National Neonatology Forum (NNF) that are focussing on this issue and are creating awareness among doctors and people," adds Satyen.