

# Oxygen shot for autism brings cautious optimism

Shobhan Singh | TNN

**Mumbai:** Can a dose of oxygen and good amount of money treat autism? Jaslok Hospital on Peddar Road has triggered a debate of sorts by offering the hyperbaric oxygen therapy (HBOT) for autistic children, dividing the city's medical community and parents in the process.

The hospital has been using HBOT — a process to deliver oxygen to patients at a high pressure in a sealed chamber — for treating various conditions such as gangrene and stroke. But many are sceptical that it will click for autism, a developmental disorder that affects 1 in every 150 children (mainly boys). Autism, for one, doesn't have a single known cause. For another, the treatment costs Rs 1 lakh even at subsidised rates.

Dr Shoaib Padaria, an interventional cardiologist and in-charge of the HBOT centre at Jaslok Hospital, said, "We have autistic children who underwent HBOT sessions and gained. Research has proved HBOT is helpful in treating autism."

A US study published in January 2009 said children aged two to seven who underwent 40 hours of treatment showed improvement in eye contact, sensory and cognitive awareness, social interaction, receptive language and overall functioning.

Consider the case of 10-year-old Asmit (name changed), who attends a special school for autistic children. Asmit's attention span has improved since he underwent the 40 sessions, believes his mother Aruna (name changed). "But HBOT should be given after properly assessing if the child suffered oxygen deprivation at birth," said Aruna.

Doctors remain sceptical. Dr Vrajesh Udani, a paediatric neurologist with Hinduja Hospital said, "A study of HBOT on cerebral palsy did not show any difference between controls and subjects. The autism study did show some differences but it must be, at present, considered experimental as only one study has shown this. More studies need to be done before it can be recommended."

added the therapy is extremely expensive and one should be careful before recommending it.

Jaslok Hospital offers the therapy at Rs 6,000 per session, with a complete course approximately at Rs 1.5 lakh. Apollo Hospital in Delhi has been offering HBOT therapy at Rs 1,800 a session, with a 40-session course for Rs 72,000.

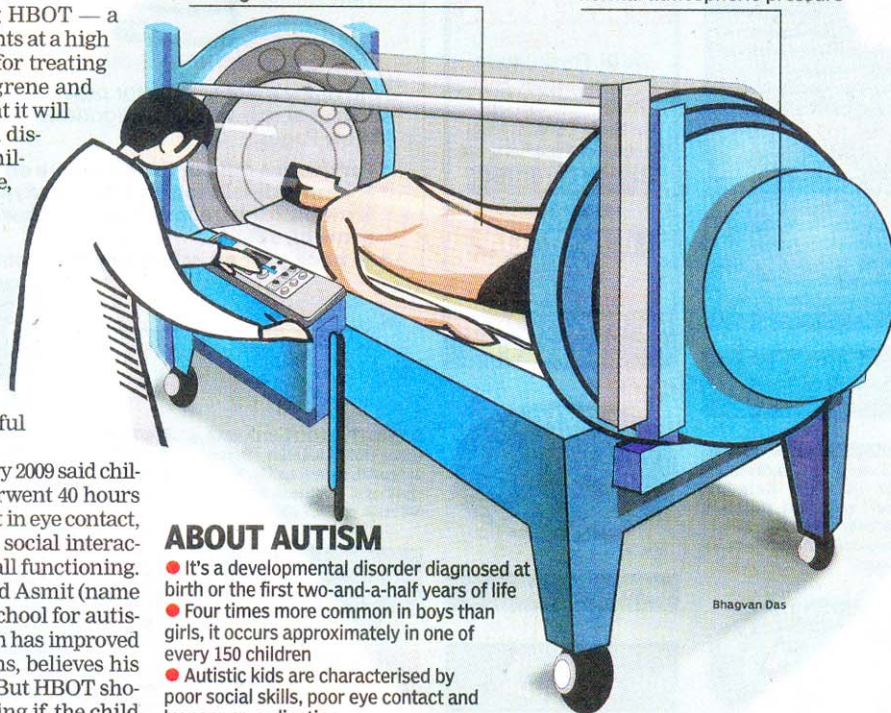
Some parents, too, are apprehensive. The primary concern indeed is cost, given the uncertainty it entails and also the fact that other treatment such as occupational and behavioural therapy cannot be discontinued. "HBOT therapy is expensive and largely unproven. And there is just one hospital in the city which offers it. We do not even have doctors trained for HBOT therapies who can monitor the whole process," said Chitra Iyer, president, Foundation For Autism (FFA).

But HBOT has its firm believers. Manish Lad, mother of seven-year-old autistic Akhil, and founder director of an NGO called Akhil Autism Foundation, said, "HBOT must be considered for autistic kids. But parents have to understand temporary healing regressions and actual regressions." She added parents have to follow the hierarchy of diet, nutrition support, anti-fungal treatment, antiviral, chelation and HBOT. "We have been using HBOT to treat autism for two years and had encouraging results," added Dr Arun Mukherjee, director of NGO Udaan, in Delhi.

## HYPERBARIC OXYGEN THERAPY (HBOT)

The patient is exposed to pure oxygen in the sealed chamber in 40 sessions lasting an hour each

A sealed chamber where the pressure is 1.5 to 3 times the normal atmospheric pressure



- The treatment involves breathing pure oxygen in a sealed chamber whose pressure is 1.5 to 3 times the normal atmospheric pressure

- It can be done in single-person chambers or chambers that can hold over a dozen people

- The increased pressure allows more oxygen to reach the body's cells, thereby contributing to the healing process

- There is no evidence to suggest HBOT cures cancer, but the US FDA has approved it to treat decompression sickness, gangrene, brain abscess and injuries in which tissues are not getting enough oxygen

- The lack of randomised clinical studies makes it hard to judge the value of HBOT's claims

- Side-effects include fatigue, claustrophobia, headache and serious ones like myopia (short-sightedness) lasting for months, sinus damage, ruptured middle ear, and lung damage. In worst cases, oxygen toxicity can result in seizures, fluid in the lungs, and even respiratory failure

### ABOUT AUTISM

- It's a developmental disorder diagnosed at birth or the first two-and-a-half years of life
- Four times more common in boys than girls, it occurs approximately in one of every 150 children
- Autistic kids are characterised by poor social skills, poor eye contact and by poor co-ordination

Bhagvan Das

## 'Hope for paralysed patients'

Rohini Nair | TNN

**Mumbai:** Bandra resident Bahadur Shroff's life turned upside down in a few minutes on June 1. His wife Prochi complained of a headache. In the time it took Shroff to get some medicines from the other room, Prochi had passed out in the bedroom. Doctors said she had suffered a stroke.

"For the next two-and-a-half months, Prochi lay in a comatose condition in the ICU at Lilavati Hospital in Bandra. Even after she regained consciousness, her right side was completely paralysed," recounts Shroff.

Hope came in the form of a newspaper report on Hyperbaric Oxygen Therapy (HBOT). "I read about a patient who had suffered a stroke similar to my mother's and HBOT had improved his condition," said Natasha Shroff, Prochi's daughter. After discussing the possibility of seeking HBOT for Prochi with doctors at Lilavati, the Shroffs decided to go ahead with the treat-

ment. "There was some scepticism since this wasn't a proven therapy, but they never stopped us from seeking alternative treatments. And we were ready to try anything that would help Prochi," said Shroff.

They met Dr Shoaib Padaria, who explained what HBOT entailed and the conditions under which it can be carried out suc-

**HBOT is helpful in stroke cases as it helps restore tissues around the damaged brain tissue, partly reviving functions of the affected body part**

cessfully. "The doctor told us we had spent lakhs on Prochi's medical expenses already, this would cost another lakh. He also explained situations in which we shouldn't go ahead with the treatment, like high blood pressure or secretion in the chest," Shroff said.

After undergoing 10 hour-long sessions in the hyperbaric chamber, the Shroffs claimed there has

been a marked improvement in Prochi's condition. "The therapy has been effective. She can now experience sensations like pain and discomfort and convey these to us. She also moved her right leg while in the oxygen chamber. This is an improvement that might have taken months to accomplish; it was definitely speeded up because of HBOT," said Shroff.

While the sessions had to be halted because Prochi's blood pressure suddenly increased, the Shroffs intend to go in for further sessions once her condition stabilises. Dr Padaria said, "Prochi had suffered from a cerebral infarction (stroke). But after the sessions, she regained some movement in her limbs. We hope she'll make more progress with additional sessions." HBOT alleviates blood flow, decreases swelling of traumatised areas of the brain, regenerates new blood vessels in these areas and repairs neurons.

The Shroffs said there has to be more awareness about HBOT's potential to help stroke patients.