

DIA LOG

Crossing Milestones

This cyclist you see to your right is Karan Chawda. He rode 300 km from Mumbai to Pune & back for 19 hours at a stretch, his sugars in perfect range. Read about his cycling trip

Interview on P2



No work in lockdown, labourers' kids struggle to get insulin

NEARLY 250 type 1 kids from needy families in Andhra Pradesh have been finding it tough to get their daily dose of insulin. Their parents, who are fishermen, construction labourers or have small shops in Vishakapatnam, were without work during the lockdown.

The Diabetic Child Society, formed by a doctor from King George Hospital, Vishakapatnam, has been providing these children insulin, blood test strips,

glucometers and other medical help as their families cannot afford the cost of treatment, says a young doctor who volunteers with Diabetic Child Society, by educating kids about the basics of diabetes.

"We raised some money by organising a bake sale to fund our mission. The money that was collected was used to buy glucometers and strips for the

children. We had plans for a Diwali party, but that had to be shelved due to social distancing restrictions," said the doctor who did not wish to be identified.

"Currently, funds for insulin and blood test strips come from contributions from various donors and medicos from Andhra Medical College who chip in. We hope to raise some funds for these

children from needy families."

The children know little about diabetes. "Their parents are illiterate; it's hard to explain things to them..." says the doctor who is a volunteer. The poverty and ignorance of the kids' families are such, says this doctor, that many of the little children often land up in diabetic coma.

BUREAU REPORT VISHAKAPATNAM

Contact Diabetic Child Society on 9949211022

Stem cells hold hope, but conditions apply

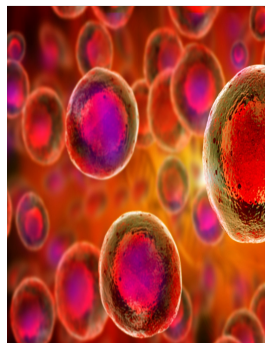
YOU'VE surely come across news about stem cell transplant as a cure for type 1 diabetes. Often, parents of newly diagnosed type 1 kids ask why their child cannot receive this therapy when some others have already tried it out. Their question is just like asking: 'Can my child go to the moon on vacation? Some astronauts have already been there.' Well, we know that going to the moon is not an option for you and me just yet. It's the same with stem cell transplant. It is still in an experimental stage.

So, what exactly are these stem cells? They are as-yet-undifferentiated cells present in living organisms, including humans. Stem

However, this potential solution comes with its own set of problems. After the stem cell is programmed to multiply and produce insulin, how do you ensure that it will produce the right amount of insulin at the right time? How do you ensure that once stimulated to multiply, stem cells will not continue to multiply in an unregulated manner — as it happens in the case of can-

practical. Firstly, it is not possible to obtain sufficient number of pancreas. The pancreas can only be taken from a person who died with healthy pancreas. Unlike with a kidney transplant where a kidney can be obtained from a living donor as God has provided us with a spare kidney, but not a spare pancreas. Secondly, a pancreas transplant is a very major surgery. Thirdly, it is

Till the stem cell transplant becomes available, let's control our diabetes to remain free of any complications, so that when it becomes a reality, we are fit enough to avail of it and enjoy its benefits



RESEARCH LAB UPDATE

cells can be programmed to differentiate and undertake the function of specialized cells. Like beta cells in the pancreas that produce insulin naturally. Researchers have considered using stem cells to create insulin-producing cells that can replace beta cells which are damaged in those who have type 1 diabetes.

Currently, a lot of hope is being pinned onto stem cell transplant, which has been performed with some success, but it is still in an experimental stage. Stem cells can be obtained from living persons and made to multiply in unlimited amounts in a laboratory.

cer? Finally, how do you prevent stem cells from being rejected by the immune system without using dangerous drugs?

So, while we dream of a permanent solution and scientists work to make that dream come true, let's concentrate on what we have at hand. Let us control our diabetes to remain complication-free, so that when stem cell transplant becomes a reality, we should be in a fit condition to avail of it and enjoy its benefits.

The other question that pops up is why not transplant a functioning pancreas or islet cells instead of waiting for stem cells? This is not

even more difficult to extract islet cells from a cadaver although islet cell transplant is a relatively simple procedure. Fourthly, for the success of a pancreas transplant or islet cell transplant, the type 1 person who receives it would need to be on life-long immunosuppressant drugs. If not, the transplanted organ would be rejected by the immune system. A lifetime on immunosuppressant treatment is more dangerous and much less acceptable than a lifetime on insulin.

Surely, you'll agree that it would be like jumping from the fire pan into the fire.

DR ASPI IRANI

Type 1? No problem! Fresh graduate lands job without difficulty

TIMES seem to be changing for people with type 1 diabetes. A 21-year-old from Bengaluru, Adarsh Krishna Mishra, has just landed a job "without much hassle" due to diabetes, contrary to what this fresh graduate had feared. Adarsh was pleasantly surprised when the company, which he has just joined, did not bother about his medical condition.

"I never imagined it would be this easy," he admits. "I had heard people talk about rejections at work due to diabetes." A graduate in business administration, Adarsh has joined a private firm in the customer service section.

He went through the usual recruitment process — a written test, an interview — before he was selected.

The company's recruitment form categorically asked if the joining candidate had any medical condition like diabetes or blood pressure. "I ticked diabetes," says Adarsh who has had it since he was nine. At one point, he says he was a bit unsure that he would be selected. "I keep good control over my sugars. Also, I am confident of my job skills," says Adarsh.

The company did not seem to mind the medical condition. "To ensure that there was no communication gap, I asked them if it was acceptable to them," says Adarsh. "But they did not even choose to discuss this matter."

Adarsh is not just happy, but also fiercely proud of his company's 'no discrimination' policy, he states.

He acknowledges that he has to continue to keep his blood

sugar levels in good check to be able to continue working well. The young man also gives due credit to his job skills. "A lot depends on how we portray



I keep good control over my sugars. Also, I am confident of my job skills
— ADARSH MISHRA

ourselves to the other person," opines Adarsh who continues to learn about diabetes management.

His parents, who are home in Patna, are happy that their boy has started his career. "They are glad that my employers did not give undue attention to diabetes. For them, it is very reassuring of a good life ahead."

BUREAU REPORT BENGALURU

His Survival Kit

Here's what Karan carried along on his trip to Pune. He had a hypo kit in his pouch along with snacks. He also had his diabetes identity card with emergency contact numbers listed on it. His insulin and blood testing kits were also handy. Above all, he carried his grit and determination!

Behind Every Successful Man...



How did Karan's wife, **Shivani**, spend the day when Karan was out pedalling? Was she anxious? Was she praying all day that everything goes well? "No, nothing like that. I'm quite confident of Karan. He's a responsible person," she says with confidence and pride

300km in 19 hours on cycle, his sugars in perfect control

Karan Chawda cycled from Mumbai to Pune and back last month. He says life with T1D is like riding a cycle, you do not fall off so long as you continue pedalling

THE time was 4.30 am. Mumbai's eastern suburb, Ghatkopar, was still to stir out of its sleep. Karan Chawda stepped out of his home and the first thing he did was check his cycle tyres and brakes one more time. He sat astride the spruced-up hybrid bicycle and got ready to hit the road to Pune.

His companions from Ghatkopar Cyclists Club would be waiting. The plan was to start on the dot of 5, cycle 300km and back to return home the same day.

Before he left home, Karan had bowed in front of the temple in his house, touched the feet of his parents, waved a 'See you soon' to his wife Shivani. The trip ahead would be long and arduous. That's precisely why it would be fun.

At 5am, Karan and seven other cyclists started pedalling. A back-up car followed them. At that early hour, the eight shadows on cycles crawled out of the half-awake city, headed southeast of Mumbai,

their faces, Karan and his co-cyclists stopped over at Khopoli for a tea break and to stretch out. Karan pulled out his glucometer from the car that tailed them. Moments later, he was smiling... His blood sugar was 110. He had omitted his short-acting insulin that morning to pre-empt low sugar. Break over, they continued to pedal on. Karan kept chatting with a co-cyclist. And then, seeing a clear road ahead, he sped up. He was whistling, humming an old Hindi film tune, taking in the sights of the countryside... "You know, cycling gives you a lot of 'me time'," notes Karan.

A software engineer, he loves outdoor activity. Trekking is another favourite. So far, he has explored over 100 forts across Maharashtra and beyond. He leads groups of trekkers and campers on weekends. On bicycle, he covered 232km from Mumbai to Igatpuri in September. That trip lasted 12 hours.

Earlier, his outdoor activity caused some conflict at home, recalls Karan. "They said I should not take such risks due to diabetes... One day, things reached a flashpoint and I told my people, not too kindly, that my outdoor activities wouldn't stop. Slowly, they accepted. I guess they didn't have a choice."

But then, Karan also told himself that he must learn a thing or two about his medical condition. "I first showed them I was capable and responsible," he says. "Even on the Pune trip, all through, my blood sugars ranged between 99 and 137. "No hypo at all," he adds with pride.

This control proved helpful. Before the cyclists rode uphill, they stopped for a second round of snacks. Blood sugar was 90. Karan wolfed down a few idlis and washed them down with piping hot tea with sugar thrown in. The next halt would be at Pune for lunch. Sugar level there was a neat 99!

Good sugar levels come with some legwork. It has to do with how well you know your body, observes Karan. "I'd love it if a fellow type 1 takes up cycling, but one shouldn't rush into it blindly. You need to know your body well and learn the basics about diabetes," he insists.

Cycling uphill on a sunny day can drain you of energy. So, Karan was armed with a 500ml bottle of water with sugar and rock salt dissolved in it. "I kept sipping on this as I was sweating," he says. "It makes up for loss of sodium and potassium."

Did not his co-cyclists worry for his diabetes? "No. They know I can take care

TOUR DE MAHARASHTRA



I am now planning a bigger cycling trip. For now, all I'll say is that it will be dedicated to spreading awareness of type 1 diabetes

COFFEE WITH KARAN



towards Pune. A cycle puncture kit was strapped to Karan's bicycle besides a handy kit for sugar control.

You might agree that a 300km cycling expedition can be quite challenging for anyone. For Karan (33), who has had type 1 diabetes since he was 15, it was even more of a challenge. The preferred road route from Mumbai to Pune is the sleek expressway. But it's out of bounds for bicycles. So, the eight cyclists hit the old highway.

The Bombay-Poona highway, like it was earlier known, is a ribbon road that snakes along field and mountain. Dotted with small towns, it meanders along a green-brown landscape. Huge trucks and state buses roar past angrily along curvy bends and slopes of the old highway.

"It's really tough to cycle uphill on Bhorghat even if you are in first gear. And speedy winds along that 1-km stretch at Lonavla make your bicycle sway," says Karan, explaining the level of a cyclist's difficulty on the stretch. "But I was prepared for the challenges of this trip." Just like Karan is geared up for daily challenges of life with type1.

As the morning breeze whipped into

of myself. We've been on many bicycle trips in the past four years," says Karan. His wife, Shivani, too is pretty confident of his ability to manage things.

For Karan, it's not just the destination that matters. Equally important are those little things along the way. Like passing truckers who show a thumbs up. Or oncoming bikers who slow down and cheer aloud. "A little village boy who was with his father, a van driver, got chatting with me. The kid asked me if cycling didn't hurt... I was touched when the boy offered to drop me in his dad's van," says Karan. "These little things make you feel you're on the right track." The trip to Pune and back made every muscle in his body sore. "Yet, it was awesome," trills Karan. "We cycled 303km in 19 hours

GET IN TOUCH

Send a WhatsApp message to Karan on 9869193486

with 10 breaks."

When he reached Ghatkopar at midnight, his dad was there to receive him. "He didn't say much, but his silence screamed out that he's proud of me," notes Karan who is now planning a "bigger trip". For now, he won't reveal details. "All I'll say is this one will be dedicated to spreading awareness of type 1 diabetes," says Karan, adding that he is waiting to start the trip. Well, so are we.

BUREAU REPORT MUMBAI