

Rare condition creates unequal blood flow in triplets, twins

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When Asmita and Prem Saggar learned Asmita was carrying triplets, they knew there was a potential for complications.

Early in Asmita's pregnancy last year, the Clarksville couple prepared for the strong likelihood that their boys would come early. They already had twins and knew that most pregnancies involving multiple fetuses don't reach the full 40-week term.

But the Saggars never dreamed their [babies](#)' lives would be in danger.

Then [doctors](#) at Johns Hopkins Hospital, reading ultrasounds that are given more frequently to women carrying multiples, discovered the babies had a rare disorder called twin anemia polycythemia sequence, or TAPS.

The rare condition occurs when one baby in a multiple pregnancy saps too much blood from another, creating dangers for both. In the worst cases, the condition can be lethal.

The Saggars faced a difficult decision: They could do nothing and hope that the babies would be born healthy. Or Asmita, a 37-year-old information technology specialist for the federal government, could submit to a risky procedure in which doctors would use lasers to try to correct the blood flow - but possibly damaging the placenta, triggering labor or causing a miscarriage.

"It was very hard," said Prem, a 39-year-old engineer.

TAPS happens only in pregnancies in which multiple babies share the same placenta - as with identical twins or triplets. It typically occurs in 3 percent to 5 percent of such pregnancies.

Doctors often discover TAPS because the blood in the baby who is getting too much is thicker than normal. This thicker blood can put stress on the baby's body, and the fetus is more likely to develop clots or blockages.

"It is almost like you're pumping concrete through your vessels," said Dr. Ahmet Baschat, director of the Center for Fetal Therapy at Johns Hopkins. Baschat treated the Saggars babies while they were still in their mother's womb.

The blood in the baby with the low count is in danger of anemia, or iron deficiency, and could suffer heart failure. It also may not get enough oxygen and nutrients to develop properly.

Asmita was several months into the pregnancy when doctors told the Saggars they were seeing signs of TAPS. The babies were not in immediate danger, the doctors said, but they planned to monitor the pregnancy more closely.

When the pregnancy reached 25 weeks - about six months, or two-thirds of the full term - doctors said the condition had progressed and that there was the potential for harm to the babies.

The procedure proposed by doctors would close the vessels that caused the irregular blood flow. They would insert an instrument called a fetoscope into the uterus to gain a close-up view. They would identify the connecting [blood vessels](#) that were causing TAPS, and then use lasers

to burn the vessels shut.

The procedure can be risky. The vessels the doctors need to target are small and difficult to pinpoint.

"You try to avoid the placenta," Baschat said. "The vessels are on the placenta. Sometimes you have to go a little bit around to get to it, but usually you can see it quite well."

The danger lies in the possibility of rupturing the membrane of the placenta, causing amniotic fluid to leak. That could trigger early contractions, labor and miscarriage. In addition, there are also the risks of bleeding and infection that come with any surgery.

In Asmita Sagar's case, the baby tucked into the left side of her womb - they would name him Q, after a "Star Trek" character - was pulling blood from the baby in the middle.

The Saggars would name that middle baby Kal, from Kal-El, Superman's birth name.

The baby in the right side of the womb - his cry was so loud he earned the name Thor, for the Norse god of thunder - was not affected.

Asmita feared for her babies' lives. "We didn't want to lose anyone," she said.

As an engineer, Prem gathers and analyzes information before making any major decision. So he turned to the internet to learn what he could about the procedure.

He was disheartened to find that information was scarce. The disorder has been studied for only a decade or so.

"You have to make this decision when there is not that not much data out there," he said.

With the information they had, the couple decided to undergo the procedure. Within 24 hours, Asmita was in surgery.

Doctors worked for four hours to close 32 blood vessels. Then they monitored Asmita closely for several days, until they determined that the [blood flow](#) to the babies had evened out.

Diagnoses of TAPS have increased in the last decade as maternal and fetal medicine centers around the world have joined a registry to share information about the disorder.

"We don't know why it happens, but we know how to diagnose and treat it," said Dr. Ozhan Turan, director of fetal therapy at the University of Maryland Medical Center. "We have enough information that we can counsel and treat patients."

The Saggars triplets are now 6 months old and healthy.

Asmita carried them to 34 weeks, which is rare for triplets. She wanted them to be born on May 27, so they would have the same birthday as their twin brothers, who are 4 years old.

In their Clarksville home, where they are helped by a nanny, the Saggars seem to manage the care of their five children with ease. They have transformed the den into a playroom. The older boys work on computer tablets near the babies. One of the babies bobs in a baby bouncer, another lies on a blanket, and Mom holds the third. The family dog runs around with a Frisbee in its mouth, looking for someone to play with.

Thor is sweet and already has a way with the ladies, his parents say. Q is

energetic and will jump in the baby bouncer until it puts him to sleep. Kal is the talkative one.

Prem looks at his family. He says they might think about having another baby one day.

"I don't know about that!" Asmita says with a laugh.

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