

1st patient with man-made windpipe almost said no

July 15 2011, By GUDJON HELGASON, Associated Press

(AP) -- The first person to receive an artificial windpipe says he almost refused the lifesaving operation.

Doctors in Sweden announced last week they had transplanted a laboratory-made windpipe into Andemariam Teklesenbet Beyene, a 36-year-old Eritrean. While studying at a university in Iceland, he was diagnosed with advanced cancer and had a large tumor almost completely blocking his windpipe.

His Icelandic doctor referred Beyene to Dr. Paolo Macchiarini, a surgeon at Stockholm's <u>Karolinska Institute</u> who has done windpipe transplants in the past. Macchiarini suggested replacing Beyene's damaged windpipe with one made in a laboratory. "He explained that this has never been done to human beings," Beyene told the <u>Associated Press</u> Thursday. "I said, 'Oh my God.' If this has not been done, how can I agree to this?"

But after talking to his Icelandic doctor and to his family, including his wife and two children in Eritrea, Beyene agreed to the revolutionary transplant. "Then I just prayed and accepted it," he said. "I was happy with the operation."

Beyene's new windpipe was made using a spongy, <u>plastic polymer</u> to speed cell growth. The device has previously been used in tear ducts and <u>blood vessels</u>. Once the windpipe was constructed in the laboratory, Beyene's own stem cells were used to create millions of other cells to



line and coat the windpipe. That meant Beyene's body wouldn't reject the new organ and that he doesn't need to take anti-rejection medicines.

Other windpipe <u>transplants</u> have been performed using donor windpipes and the patient's own <u>stem cells</u> to cover the new <u>trachea</u>, but Beyene's case is the first to use a man-made organ.

Beyene recently arrived back in Reykjavik and is now recovering at the national hospital. His doctors will run scans on his new windpipe every six months for at least the next five years. They will be monitoring Beyene for any possible complications, including possible infections.

Beyene isn't sure when he will be released from the hospital but hopes to return to Eritrea to see his family soon. "I am very eager to see them and they are very eager to see me," he said. "But it depends on the health situation."

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Citation: 1st patient with man-made windpipe almost said no (2011, July 15) retrieved 7 May 2024 from <u>https://medicalxpress.com/news/2011-07-1st-patient-man-made-windpipe.html</u>

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