

Spanish doctor says leg transplant patient elated

July 12 2011, By DANIEL WOOLLS , Associated Press

A young man [who underwent the world's first double leg transplant](#) might be able to walk with the aid of crutches in six or seven months if his rehabilitation goes well, the surgeon who oversaw the operation said Tuesday.

Dr. Pedro Cavadas said the patient is a man in his 20s who lost his legs high above the knees in an accident, but gave no other details on him or the donor.

The surgery started Sunday night at a hospital in Valencia in eastern Spain and lasted 10 hours. Cavadas told a news conference the patient was elated upon seeing his new limbs.

Doctors have previously transplanted hands, arms and even faces, but no legs have previously been transplanted. That's largely because artificial legs usually allow patients to walk and even run.

Other doctors not involved with the surgery said the next few days would be crucial for establishing a strong blood supply in the patient's new legs. "That is the priority now," said Dr. Nadey Hakim, surgical director of the West London Transplant Unit at Hammersmith Hospital. "If the [blood supply](#) stops, the limbs are gone."

Hakim reckoned that if all goes well, the patient might have 60 percent use of his new legs, based on the amount of function patients of hand and arm [transplants](#) have been able to regain. "Whether he will obtain

any strength in his transplanted [leg muscles](#) is a key question," Hakim said. He said the double [transplant surgery](#) was a very [invasive procedure](#) and questioned how successful it might ultimately be. He doubted a similar surgery would ever be granted ethical approval in Britain.

Cavadas said the key to the long period of rehabilitation that lies ahead will be how his nerves regenerate and join up with structures like muscles, joints and skin.

Cavadas said he imagines the patient will be able to walk with crutches and perhaps even without crutches over the long term. But this depends largely on the physiotherapy process.

"If everything goes as we hope it does, it would be realistic to think that in six or seven months he could be walking" with crutches, Cavadas said.

Still, other experts thought it might take a year or two before the patient is able to use his legs. "[Nerve](#) regeneration usually occurs at the speed of about an inch a month," said W.P. Andrew Lee, chairman of plastic and reconstructive surgery at Johns Hopkins University School of Medicine. He said it was uncertain just how much use the patient would get out of his legs and that unless the patient regains feeling in his feet and his legs, he wouldn't be able to walk.

He also questioned whether the potential benefits from the procedure outweighed the risks, since the patient will need to take anti-rejection medicines for the rest of his life, drugs that come with serious side effects including organ damage.

Lee said that artificial legs offer most patients an excellent chance to regain mobility. He was unsure whether the patient's inability to use prosthetic limbs might also hurt his chances of regaining sensation in his

donated legs.

Spanish officials have said doctors tried artificial legs with this patient but they did not work because his amputation was so far above the knees.

Cavadas is known for having carried out Spain's first double hand transplant in 2006. In 2009 he carried out Spain's first face transplant, which was also the first anywhere to include a new tongue and jaw.

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