



Dr James Shapiro, director of the islet cell transplant programme at the University of Alberta, who designed the protocol, said, 'We've come a long way in a really short time, and I think islet transplantation is here to stay'.

How it works

Islet cells, which make up about 1% of the pancreas, can be isolated from cadaver pancreases and then transplanted through a catheter into the recipient's liver. Once in the liver, the cells develop their own blood supply and begin producing insulin. This procedure is minimally invasive and takes about 45 minutes to complete. The cells cannot be placed directly into the pancreas, because that organ is too vulnerable to inflammation.

First performed in humans in the 1980s, islet cell transplants were rarely successful.

Latest case

The King's programme is the first to report a Canadian-comparable result in the UK. Their patient has so far proved

that it is possible for islet transplants to lead to freedom from administered insulin and diabetes treatment-associated problems. He had suffered from type 1 diabetes for over 30 years and was experiencing increasing problems with therapy.

People with type 1 diabetes often live extremely regimented lives, requiring self-blood testing 4 times or more per day, injecting insulin 5 times per day and constantly being aware of the food they eat, level of exercise and levels of alcohol consumption.

The King's College team has to date transplanted 3 type 1 diabetes patients with pancreatic islet cells. The first 2 achieved partial success, achieving relief of hypoglycaemia problems, but still requiring small doses of insulin.

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Cape Town Congress

Professor Du Toit said the World Diabetes Congress in Cape Town would stimulate awareness of the severity and complications of diabetes and rekindle research in South Africa. However, he doubted it would result in a greater flow of international funding into the country.

'Most research money comes from the pharmaceuticals and with more than 50 million diabetics in the United States alone, they're hardly going to back work that would ultimately undermine their drug sales.'

Du Toit has been doing pancreas research for 30 years and is the author of 200 papers, many of them on transplantation.

Chris Bateman

The South African Medical Journal

100 years ago:

A curious case came up lately on appeal to the Natal Supreme Court. By a most marvellous arrangement obtaining in the Garden Colony, native doctors are licensed in Zululand. One of these, Radebe by name, sued one I. Van der Merwe, a European, for £15, of which £1 was a retaining fee, for attendance on a swelling of the hip. The patient had tendered £1 1s. The Vryheid R.M. dismissed the case on the ground that a native doctor licensed under the Native Code, could not recover for practice amongst Europeans. On appeal, however the Supreme Court ruled that there was no restriction to Native Code license, and remitted the case for a new trial on the facts. This recourse to native doctors, licensed or unlicensed, is quite a common, and most regrettable thing on the Frontier Districts of the Cape, and in Natal. The curious point is that fees are paid out of all proportion to what the much maligned District Surgeon would think of. We have no doubt whatever that, but for reliance on the technical point raised, the patient would have never dreamt of contesting the claim.

50 years ago: Influenza between outbreaks

We still do not understand what happens to influenza between outbreaks. In one month there may be in a country tens of thousands of people with influenza and there may be hundreds of millions of virus particles in each of them — say 10^{14} particles altogether. A couple of months later it may be impossible to find an influenza virus in that country, outside a laboratory. The death rate amongst these viruses has been appalling — but incidentally there has been an opportunity for Natural Selection to act in a colossal way to foster a suitable mutant. Some think that as an epidemic subsides, the virus' activities pass on to some other country with lower herd immunity and so on round and round the world. Others think that the virus goes 'underground' — metaphorically speaking — into a place and form in which we cannot identify it, waiting to emerge modified or unmodified to start an epidemic two years later or when the time is ripe. This may merely mean that it keeps ticking over very quickly causing subclinical cases and a very occasional sporadic clinical case, never drawing attention to its presence. We shall see later that there is evidence for both undetected endemicity and for occasional trans-oceanic spread.