Still hope for GAD diabetes vaccine

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Despite the disappointing results in trying to treat children suffering from type 1 diabetes with the GAD vaccine, the treatment has not been written off entirely. DIAPREV-IT, the study in which healthy high-risk children are vaccinated, is continuing as planned, and now with more money behind it.

"I am still hopeful that the GAD vaccine will work", says Helena Elding Larsson.

Dr Elding Larsson is a paediatrician at Skåne University Hospital in Malmö, Sweden, and a researcher at Lund University's Diabetes Centre. She is leading the DIAPREV-IT research project.

The Juvenile Diabetes Research Foundation (JDRF) in the USA, the world's largest funder of research on type 1 diabetes, also believes in DIAPREV-IT.

It recently awarded the project USD 495 000 (over SEK 3 million) in a three-year grant.

At the beginning of May, the company Diamyd, which manufactures the GAD vaccine, reported that the attempts to halt the destruction of the insulin-producing beta cells in children who have recently fallen ill with type 1 diabetes had not produced any positive results.

The European part of the study was therefore ended. The results from a similar study in the US are not expected for another year.

Different conditions for GAD vaccine in DIAPREV-IT

DIAPREV-IT is the first and so far only study in which healthy children at high risk of developing diabetes are vaccinated. The children should have risk genes for type 1 diabetes and at least two antibodies against beta cells, which is a sign that the immune system is starting to attack the cells.

"We know that the risk of these children developing diabetes is very high", says Helena Elding Larsson.

It is only once the majority of all the beta cells have been destroyed that the disease breaks out.

"Because we are vaccinating children earlier in the disease process, they have more beta cells left that can be saved. This should mean that there is a greater chance the vaccine will have an effect."

Another difference that could be significant is that some of the children are younger. The lower age limit in DIAPREV-IT is four.

"We will not know for another five years whether it has worked or not, and if it does, a larger study must be carried out to confirm the results", says Helena Elding Larsson. "

Because the GAD vaccine doesn't have any side effects, I think it would be wrong not to pursue DIAPREV-IT to its completion. There is a possibility that it will succeed, and so we cannot pass up this opportunity."