Adult Stem Cell Therapy Tackles Diabetes Complications

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Despite a degree of controversy surrounding stem cell therapy, more scientists are starting to discover that adult stem cells are like tiny superheroes with the potential to ease the symptoms of a multitude of serious health problems.

Among the most effective uses for stem cells include inflammation-based diseases such as type 2 diabetes as well as autoimmune disorders like type 1 diabetes and rheumatoid arthritis.

Traditionally, the disease and its complication are treated with insulin as well as drugs that help reduce pain, protect organs and prevent additional damage by helping regulate blood glucose levels.

Adult stem cell therapy removes a patient’s stem cells stored in body fat and injects them into the abdomen where the majority of the immune system lives and helps treats most of the complications associated with diabetes.

Stem cells are like a small but powerful medical team, according to Dr. Todd Malan, the chief cell therapy at Okyanos, one of the leaders in stem cell technology. They are blank slates that can serve a wide range of purposes, including:

• Repairing the lining of blood vessels so blood flows more smoothly. Because they increase blood flow, stem cells can also reverse damage to the beta cells of the pancreas tasked with making insulin, so there is more of the hormone available naturally;  
• Improving the communication between cells, so cells are better able to take in glucose, reducing the amount of sugar in the blood;  
• Restoring nerve function, so the pain of peripheral neuropathy is reduced; and  
• Alleviating inflammation, lessening stress on the body and reducing the release of abnormal levels of inflammatory messengers.

Once the stem cells enter the body, they immediately realize where the body’s inflammation exists and heads there to fix it. This includes tissue repair, the creation of new blood vessels, building cartilage or muscles to fix the damage.

Adult stem cells can reverse, prevent and slow down much of the damage caused by high blood sugar levels.

“Stem cells from your body are much better at the cell to cell communication,” said Malan, and immediately realize they have “a lot of jobs to do.”