



Can Type 2 Diabetes Mellitus be cured? Chinese scientists have the answer

La Diabetes Mellitus Tipo 2 se puede curar? Científicos chinos tienen la respuesta

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Dear readers:

In June of this year, Chinese researchers announced the cure of a 59-year-old patient with Type 2 Diabetes Mellitus. The shocking news was released after 11 weeks of the application of a cell therapy that involved reprogramming peripheral blood mononuclear cells. of the patient into induced autologous stem cells and in this way, the reprogrammed cells allowed the reconstitution of pancreatic islet tissue.

The recent scientific development that occurred in China is the result of years dedicated to the search for treatment alternatives for Diabetes Mellitus by a medical team from Changzheng Hospital, Renji Hospital and the Center of Excellence in Molecular Cell Science of the Chinese Academy of Sciences located in Shanghai.⁽¹⁾

The researcher who led the study, Yin Hao, announced that the 59-year-old patient suffered from and was diagnosed with this non-communicable disease more than 25 years ago. In 2017, after developing end-stage diabetic nephropathy, he underwent a kidney transplant. Even so, glycemic control was poor, after the function of the pancreatic islets had considerably decreased.⁽¹⁾

With participation in the study, the patient underwent regenerative transplantation of pancreatic islet cells and after 11 weeks without the external application of insulin, blood glucose levels remained within normal parameters. After a year, he did not require other medications to the treatment of pathology. The permanent follow-up and the studies to which he was subjected showed that pancreatic function had been restored and the intervention had been effective and successful.

It is important to remember that there are several types of diabetes that are diagnosed in the world the most common is Type 2, a variant suffered by around 90% of diabetics. It appears when pancreatic cells or islets produce an insufficient amount of insulin, causing poor glycemic regulation. Multiple consequences and effects on human health are known after debuting with this disease, since excess glucose generates considerable damage to cardiovascular and renal health, as well as other organs and organ systems.

Type 2 Diabetes Mellitus has a high incidence in the world today, evident in the figures that health system statistics collect and present each year. In the case of Cuba, according to the Health Statistical Yearbook,⁽²⁾ and in 2022, Diabetes Mellitus was the eighth cause of death in the country with 2,510 people, of them 1,445 women for a rate of 22,7 per 100,000 inhabitants. The provinces with the highest incidence were Sancti Spíritus, Matanzas and Havana in that order, with rates ranging between 98 and 80 people diagnosed with the disease per 1,000 inhabitants.

China, for its part, is the nation with the largest number of inhabitants on the planet, hence the probability of having a high percentage of diabetic people is higher compared to other countries, although it does not mean that it is directly proportional, overpopulation and the aging of this Asian country influences the negative statistics associated with Diabetes Mellitus. In 2021, more than 140 million people were counted with this condition and of them 40 million patients were insulin dependent.⁽³⁾

Without a doubt, it is a scientific milestone, an open door to hope for hundreds of people who suffer from this disease and see their lives limited from multiple aspects. Although prevention continues to be the key and fundamental point to prevent Diabetes Mellitus, having effective treatments after the onset of the disease guarantees a better quality of life for the patient and relief for health systems, increasingly overloaded with the disease appearance of communicable and infectious diseases.

BIBLIOGRAPHIC REFERENCES

1. Sánchez MC. Reportan un primer paciente "curado" de diabetes tipo 2 gracias a un trasplante celular en China. Medicina y Salud Pública [Internet]; 2024 [citado 01/07/2024]. Disponible en: <https://medicinaysaludpublica.com/noticias/diabetes/reportan-un-primero-paciente-curado-de-diabetes-tipo-2-gracias-a-un-trasplante-celular-en-china/23828>
2. Oficina Nacional de Estadística e Información. Anuario Estadístico de Cuba 2022. Dirección de Registros Médicos y Estadísticas de Salud. Ministerio de Salud Pública de Cuba [Internet]; 2023 [citado 01/07/2024]. Disponible en: https://www.onei.gob.cu/sites/default/files/publicaciones/2024-04/aec-2022_0.pdf
3. Ranking de los países con mayor número de enfermos de diabetes en 2021. Statista. [Internet]; 2024 [citado 01/07/2024]. Disponible en: <https://es.statista.com/estadisticas/636099/paises-con-mayor-numero-de-adultos-con-diabetes-a-nivel-mundial/>