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Current therapies for type 2 diabetes are not able to stop the progressive deterioration of pancreatic beta-cell function that drives the natural history of the condition.

A new meta-analysis study conducted on patients in US and Canada, by a team of scientists led by Dr Ravi Retnakaran, endocrinologist & clinician-scientist, Mount Sinai Hospital, Toronto, Canada, focuses on the early use of insulin therapy to improve beta-cell function and stop the deterioration of these cells, promising a new ray of hope to tackle the disease more efficiently.

"The concept is that, early in the course of type 2 diabetes, the dysfunction of the beta-cells is largely reversible. Thus, we are interested in short-term intensive insulin therapy early in the course of type 2 diabetes, so that we can put this disease into 'remission' so to speak," opined Dr Ravi.

The therapy has been studied in various settings around the world. The study has been published in Lancet Diabetes journal in 2013, showing that the therapy can consistently improve beta-cell function and the action of insulin in the body, when applied in patients with recently-diagnosed type 2 diabetes.

"Furthermore, it could induce remission of diabetes wherein patients could maintain glucose control off anti-diabetic medications for some time thereafter," Dr Ravi said.

Speaking on the relevancy of the therapy on Asian and Indian patients, Dr Ravi commented, "This therapy has been most frequently studied in Asian patients, though our experience has been that it is similarly effective across ethnic groups. As such, we would anticipate that it would be applicable to Indian patients as well."

Dr Ravi feels that because of the wide availability of insulin, he anticipates that this therapy will be applicable to emerging countries. "That said, the appropriate implementation in a given setting or country will be dependent on the availability of local resources such as diabetes nurse support and access to medication," he pointed.

He also expressed interest in collaborating with Indian biotech companies
if appropriate opportunities arose.

The research was conducted by a group of research experts consisting of clinician scientists, diabetes nurses, dietitians, post-doctoral fellows and research assistants.

When asked about the affordability of the therapy, Dr Ravi said, "The affordability and accessibility will be dependent on the optimal medication preparations for applying this therapy. In this regard, we and others are testing different strategies in order to first identify the optimal preparations."