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## TYPE 2 DIABETES MELLITUS REMISSION FOLLOWING AUTOLOGOUS STEM CELL TRANSPLANT FOR MULTIPLE MYELOMA

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**Background:** Type 2 Diabetes is becoming increasingly common. The current standard approach of treatment strives to maintain glycaemic control through diet, oral anti-hyperglycaemic agents, injectable GLP-1 analogue treatments and insulin. None of these methods have been deemed curative. This case discusses the potential for the use of peripherally inserted haematopoietic autologous stem cells as a potential 'cure' for T2DM.

**Case report:** An interesting case was observed of a patient with Type 2 diabetes having remission of his diabetes following autologous stem cell transplant for multiple myeloma.

**Discussion:** Stem cells have been proposed as a treatment method for both type 1 and type 2 diabetes. Sources for stem cell therapy in diabetes mellitus include embryonic stem cells, cord blood stem cells, and adult stem cells derived from adult tissues such as bone marrow or peripheral blood. Research has already shown targeted transplant of autologous stem cells to the pancreas have resulted in a decrease in oral anti-hyperglycaemic and insulin requirements as well as reduction of HbA1C. With the outcome observed in our patient, a possible mechanism is that the autologous stem cell transplant injected peripherally for multiple myeloma could have also had an effect on his insulin producing beta cells via regeneration, or increasing their function and ability to secrete insulin hence leading to an eventual down titration of his anti-hyperglycaemic medication. We conclude that further research is needed to gain a better understanding of the therapeutic role posed by autologous hematopoietic stem cell therapy.