

Assessing the potential for alpha-glucosidase inhibitors in prediabetic states.

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Type 2 diabetes often has an insidious onset with hyperglycaemia being present for many years before diagnosis is made. It is a progressive disease, due in part to loss of beta-cell function, with the reduction in function probably commencing 10-12 years prior to diagnosis and being aggravated by increasing fasting plasma glucose levels. Earlier intervention in those at risk from type 2 diabetes, aimed at minimizing hyperglycaemia, may prevent or delay overt diabetes and the associated development of micro- and macrovascular disease. Six-year follow-up data from the UK Prospective Diabetes Study, confirm that sulphonylurea, metformin and insulin therapy can reduce hyperglycaemia in individuals with type 2 diabetes. Although none of these agents prevent the subsequent progressive increase in fasting glucose levels, preliminary results with acarbose show that fasting plasma glucose levels can be maintained over 1 year of therapy. Three large-scale studies are currently investigating whether treatment with acarbose at an earlier stage of the disease process, in subjects with varying degrees of glucose intolerance, may be beneficial in helping to prevent or delay the onset of diabetes.