

Sulfonylureas in the therapy of type 2 diabetes mellitus: where do we stand today?

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The treatment of type 2 diabetes mellitus has, for many years, relied on a limited number of classes of agent: sulfonylureas, biguanides, and, later on, α -glucosidase inhibitors. For a long time, these drugs were simply used because they could reduce blood glucose in diabetic patients without realizing the pathogenetic defects these drugs could have addressed. After decades of vigorous research, we now understand that type 2 diabetes mellitus is the result of the concomitance of defective insulin action (ie, insulin resistance) and impaired insulin secretion. We also have better, although not complete, understanding of cellular alterations responsible for these two main pathogenetic factors. As a result of increasing knowledge, new forms of treatment have been made available. Glitazones are now widely used for improving insulin resistance. Incretins and incretin-mimetic molecules are entering the diabetic pharmacopoeia as new insulin secretagogues, and more are likely to come.

Does this mean that there will be fewer indications for classic antidiabetic drugs? Sulfonylureas, the first class of oral antidiabetic agents to be introduced into clinical practice, have been the mainstay of the pharmacologic

therapy of type 2 diabetes mellitus because of their mechanism of action and limited cost. Their efficacy not only in reducing blood glucose but also in preventing diabetic complications has been highlighted by the results of the United Kingdom Prospective Diabetes Study. New formulations are now available that may facilitate patient compliance while reducing the risk of hypoglycemia. Thus, it appears legitimate to ask ourselves what the position of sulfonylureas is in the treatment of type 2 diabetes mellitus at the start of a new century, when a new range of treatments is available, and when there appears to be the beginning of a diabetes pandemic. In an attempt to stimulate critical appraisal of the role of sulfonylureas today, the proceedings of the Satellite Symposium "Sulfonylureas in the Therapy of Type 2 Diabetes: Where Do We Stand Today?" held during the 41st Annual Meeting of the European Association for the Study of Diabetes are now presented. This supplement is intended to provide the reader with an update on sulfonylureas, reviewing mechanisms of action with respect to blood glucose lowering and beyond glycemic control, the efficacy-safety ratio, and clinical and experimental trials.