

Towards a Revised Algorithm for the Treatment of Diabetes Mellitus Type 2. Focusing on Cardiovascular Benefits to Guide Drug Class Selection

Christodoulos Monastiriotis*

Outpatient Clinic of the Diabetic Foot, Second Department of Internal Medicine, Democritus University of Thrace, Xanthi, Greece

*Corresponding author: Christodoulos Monastiriotis, Outpatient Clinic of the Diabetic Foot, Second Department of Internal Medicine, Democritus University of Thrace, Xanthi, Greece. Tel: +306948510222/2321020155; Email: c_monastiriotis@yahoo.com

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Communication

It has been almost 20 years since metformin was recognized as the first antidiabetic agent with a beneficial effect on cardiovascular events according to UKPDS's results [1]. The disappointment at the failure of rosiglitazone, the first member of thiazolidinedione's class, left sulfonylureas and their analogues, meglitinides, to be the most reliable alternatives to metformin, together with insulin.

However, a series of trials on novel antihyperglycemic agents has recently showed that some of them have beneficial effects against cardiovascular events. In particular, two GLP-1 receptor agonists, injectable liraglutide [2] and oral semaglutide [3], together with two SGLT-2 inhibitors, empagliflozin [4] and canagliflozin [5] both taken orally, have achieved a reduction in complex cardiovascular endpoints in longitudinal, double-blinded RCT's versus placebo. Subsequently, another trial followed which demonstrated that the benefit of empagliflozin is actually a class effect of SGLT-2 inhibitors [6]. Most recently, a new study tried to shed light on a possible mechanism [7].

American Diabetes Association (ADA) has already encompassed new evidence in its updated annual guidelines for the treatment of Diabetes Mellitus [8]. It is, therefore, expected that the upcoming review of ADA/EASD consensus, awaited to be released soon, will focus on recommendations on the treatment of certain groups of patients with high risk for cardiovascular events. Beyond glucose and HbA1c measurements, a target of diabetes treatment is to minimize the cardiovascular consequences and now it seems that we have effective tools to achieve it.

Therefore, treatment decisions should be guided not only by glycemic targets but also by the burden of cardiovascular risk. As soon as there are available new drugs with evidenced beneficial cardiovascular effects, physicians have to offer their patients the chance to benefit and this is expected to be the concept of the new guidelines.

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