Journal club: Ideas for improving patient outcomes – the quirky and the ones in the guidelines

Diabetes clinicians cannot live by guidelines alone. We must be ever vigilant with respect to individualised care plans for our patients, based on the evidence in front of us, our reading and potential acceptance of it, and the patients' views.

We all accept that obesity is a major risk factor for type 2 diabetes. When we treat individual patients with type 2 diabetes, we should appreciate that the person in front of us may be merely the sentinel presenting case in a diabetogenic family. Future patients with type 2 diabetes may arise within this family and, therefore, the exhortation to live healthily – particularly to have a balanced diet in keeping with the needs of the body and a normal BMI, along with optimal physical activity – is essential. What else can we advise?

The research by Li et al (2022), from the UK Biobank and the US Women's Health Initiative, investigated whether the type of dietary protein – whether predominantly animal or plant – made any difference to an individual's risk of diabetes. In this cohort study of over 142 000 people, there was a 31% increased risk of diabetes comparing those in the highest quintile of animal protein intake to those in the lowest. Conversely, the highest intake of plant protein was associated with an 18% reduced risk compared with the lowest. Substituting 5% of animal protein with plant protein was associated with a 21% decrease in the risk of type 2 diabetes. Almost all these data were attenuated by adjustment for BMI. The purported mechanism is thought to be via a reduction in obesity-related inflammation, with the relevant biochemical markers of hs-CRP, interleukin-6, leptin, and sex hormone-binding globulin supporting this idea.

Our intrinsic clinical inertia probably means that we will not conduct a wholesale change to SGLT2 inhibitor prescriptions over the DPP-4 inhibitors any time soon (Khunti et al, 2013). This is despite the recent update to the NICE (2022) guideline on type 2 diabetes management clearly stating and giving the evidence for the beneficial effects of SGLT2 inhibitors for all those with a QRISK score of 10% or more, or if the patient has heart failure, chronic kidney disease or manifest atherosclerotic cardiovascular disease (NICE, 2022). A further fillip to the early use of SGLT2 inhibitors comes from a well conducted study from Hong Kong, which showed that these agents were associated with a 59% reduction in pneumonia-associated deaths versus DPP-4 inhibitors (Wu et al, 2022). Elsewhere, the initiation of an SGLT2 inhibitor rather than a DPP-4 inhibitor was associated with a 36% reduction in risk of the composite renal endpoint, a 26% reduction in mortality and a 63% reduced rate of progression to end-stage renal disease (Idris et al, 2022). All this was over a median follow-up of only 2.1 years.

One edict from the NICE (2022) update that many, but not all, clinicians would have disputed was the continued stipulation to use isophane insulin rather than the longer-acting insulins such as glargine. Most clinicians prefer to use an agent that they perceive, rightly or wrongly, as safest for patients in terms of hypoglycaemia risk. Some new evidence to aid such decisions comes to light with the publication of a study by Brunetti et al (2022). This showed that the use of long-acting analogues versus isophane insulin is associated with a significant, but modest, reduction in major adverse cardiovascular events of 11%. That is good enough for me.

So SGLT2 inhibitors are the new statin. NICE advocates their use in in anyone with type 2 diabetes and a QRISK score of ≥10%. There is accruing evidence that the longer-acting insulin analogues do benefit patients. And plant proteins may help reduce risk of type 2 diabetes, with other benefits outside the scope of this editorial, including a positive contribution to mitigate against climate change. Food for thought indeed. ■

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