Liraglutide for type 2 diabetes – new data

In May this year, we published an article on Liraglutide for type 2 diabetes (DTB 2010; 48: 50–3). At the time, there were no published randomised controlled trials comparing liraglutide with sitagliptin. However, since then, there has been publication of a 26-week non-blinded randomised trial that compared subcutaneous liraglutide 1.2mg and 1.8mg daily with oral sitagliptin 100mg daily, all in addition to metformin, in 665 patients with type 2 diabetes and inadequate glycaemic control (HbA1c 7.5–10.0%) despite treatment with metformin (at least 1,500mg daily) for 3 months or longer.

At 26 weeks, in this study, the mean change in HbA1c levels (the primary outcome measure) from a baseline of around 8.5% was greater with both doses of liraglutide than with sitagliptin (1.2mg: −1.24%, 95% CI −1.37 to −1.11; 1.8mg: −1.50%, 95% CI −1.63 to −1.37; sitagliptin −0.90%, 95% CI −1.03 to −0.77). In terms of secondary outcome measures, mean weight loss was greater with both doses of liraglutide than with sitagliptin (1.2mg: −2.86kg, 95% CI −3.39 to −2.32; 1.8mg: −3.38kg, 95% CI −3.91 to −2.84; sitagliptin: −0.96kg, 95% CI −1.50 to −0.42), but neither drug reduced systolic blood pressure significantly. More patients developed adverse events with liraglutide (66% with 1.2mg and 73% with 1.8mg) than with sitagliptin (58%), the most common being gastrointestinal symptoms, particularly nausea that diminished over time.

The results of this study show that liraglutide reduces HbA1c levels more than sitagliptin, but do not affect the conclusion of DTB’s review on liraglutide for type 2 diabetes. This stated that “liraglutide is expensive and currently lacks long-term safety data. Therefore, we believe that it should be considered only after conventional oral hypoglycaemic therapy (including a glitazone) has failed, and where the avoidance of weight gain is crucial, insulin therapy is contraindicated, or the individual is unable to tolerate exenatide.”

[R=randomised controlled trial; M=meta-analysis]