PRESENTATION 2

Dipeptidyl Peptidase-IV Inhibitors for Non-Alcoholic Fatty Liver Disease Treatment in Patients with Type 2 Diabetes Mellitus: A Systematic Review

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Background

Non-alcoholic fatty liver disease (NAFLD) is a spectrum of liver conditions caused by a build-up of fat in the liver, in the absence of alcohol. It is an important public health concern due to the increasing obesity epidemic. Patients with type 2 diabetes mellitus (T2DM) and NAFLD are at a higher risk of developing severe forms of NAFLD. There is growing evidence for the use of incretin-based therapies, such as dipeptidyl-peptidase-IV inhibitors (DPP-IV inhibitors), to treat the condition. The aim of this review was to determine whether DPP-IV inhibitors are effective in improving NAFLD in T2DM patients.

Methods

A systematic review was done and the Jadad scoring system was used to assess the methodological quality of trials.

Results

Only 4 trials fit the inclusion criteria resulting in a total of 168 participants. This review provides further evidence that sitagliptin does not significantly improve hepatic fat content or NAFLD progression according to; histological assessment, MRI imaging and serum ALT levels. The results were limited by a low number of RCTs investigating a wide range of DPP-IV inhibitors, inconsistency between trials, low sample numbers, short duration and a lack of reporting diet and exercise regimes.

Key messages

Future trials are needed to accurately conclude the efficacy of DPP-IV inhibitors on NAFLD in T2DM patients. These trials should be long in duration and have a large ethnically diverse sample size. Standardisation is required in trials, both in the types of participants included and in the method of measuring drug treatment outcomes.

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