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LETTER

Assessment of Changes in Body Composition After 3 Months of Dulaglutide Treatment [Letter]

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Dear editor

The recently published article by Chen et al entitled "Assessment of changes in body composition after 3 months of dulaglutide treatment" was read and reviewed by us due to the interesting topic and it provided discussion with a broad perspective.[1] As also stated in the article, dulaglutide is a weekly dose of a long-acting glucagon-like peptide-1 receptor agonist (GLP-1RA) which works in a glucose-dependent way to stimulate insulin secretion and reduce glucagon levels in both fasting and postprandial stage.[2] Since 2015, a weekly dosage of 0.75 mg has been licensed in Japan for the treatment of type 2 diabetes.[3] A previous study reported higher dulaglutide doses, from 0.75 to 1.5 mg commonly, and from 3.0 to 4.5 mg for uncommon special needs, that were recently introduced to the market and under investigation in Germany and the UK.[4] In this study, however, recruited patients were treated with a weekly subcutaneous injection of 1.5 mg dulaglutide, as well as a diabetic diet, exercise intervention, and educational materials.

Another previous study reported that inpatients with glucocorticoid-induced hyperglycemia may benefit from dulaglutide treatment, which provided glycemic control activity while lowering the insulin dosage and injection frequency.[5] In their study, Chen et al proved that the weekly treatment of 1.5 mg dulaglutide could not only decrease the body mass index and body weight of the patients, but also alter the body composition, such as body fat, lean body mass, skeletal body mass, and bone mineral as the indicator of bone mass.[1] This study showed the good impact of dulaglutide treatment that could be observed even though only in a 3-month period of treatment time. However, the few conditions employed in this study was worthy for further discussion which could be considered in future studies.

This study only used one type of dose in their study; meanwhile in other countries, such as Japan, 1.5 mg weekly dose of dulaglutide was not allowed. Therefore, another comparison study with few variations of doses could help to monitor whether the clinical effect and impact of dulaglutide in altering body composition is dose-dependent. Another question was that whether after stopping receiving dulaglutide treatment, will everything return to normal due to the reverse effect and how long will it take to happen? Depending on the data observed later, will it affect the clinical status of the type 2 diabetic patients? Since this study is an intriguing and promising study, the authors also could consider further study regarding how dulaglutide affects particular components of body composition. Overall, we congratulate the authors for their findings which could be expanded in further studies in the near future.

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Disclosure

The authors report no conflicts of interest in this communication.

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