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Low Threshold Therapy for Older People with Type 2 Diabetes

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Introduction

Diabetes is becoming more common worldwide, especially in older age groups. For instance, 44% of those who have diabetes are over 65. Frailty is a developing new diabetic consequence that is increasingly acknowledged in professional guidelines for managing diabetes. Frailty does not appear to be a uniform idea, and there may be a range of various metabolic phenotypes, which could affect whether hypoglycemic medications are best for a certain person. The anorexic malnourished (AM) phenotype, which has severe weight loss and decreased insulin resistance, is at one extreme of the metabolic spectrum of frailty, and the sarcopenic obese (SO), which has excess weight and higher insulin resistance, is at the other. It examines the hypoglycaemic safety of insulin analogues in this population, as well as the potential beneficial effects of insulin on muscle function in older (>60 years of age) diabetics, and it offers a literature-based recommendation for the early introduction of insulin in the AM frail phenotype [1].

Description

Despite the fact that insulin has physiological anabolic qualities, nothing is known about how it affects skeletal muscle mass, strength, or function. In frail, elderly diabetics, insulin may raise body weight and improve muscle mass, particularly in the AM phenotype when insulin-associated weight gain may be advantageous. The anabolic action of insulin is reduced in older persons, which suggests that greater doses of insulin may be necessary to accomplish this anabolic effect in later age groups. Previous research has shown that insulin can enhance muscle protein synthesis and anabolism in younger individuals [2,3].

In comparison to intermediate-acting insulins, insulin analogues, such as insulin glargine, detemir, and degludec, are structurally modified human insulins that closely mirror the pharmacokinetic characteristics of endogenous insulin. Long-acting insulin analogues have a lower risk of hypoglycemia, especially nocturnal hypoglycemia, due to their prolonged duration of action and less dramatic insulin peak. In earlier clinical trials, there was inconsistent evidence for this benefit. However, because the majority of these earlier studies primarily included patients under the age of 60, they were underpowered to detect the effectiveness and safety of long-acting insulin analogues in older age groups, who are more at risk than younger people for hypoglycemia and its serious consequences [4].

When recommending hypoglycaemic medications to frail elderly adults with type 2 diabetes, it is important to take into account the possible effects on body weight. For instance, the AM phenotype should not utilise weight-limiting medications as GLP-1RA and SGLT-2 inhibitors due to the increased danger of further weight loss, dehydration, hypotension, and a higher chance of falling. Acarabose is less tolerated, causes considerable gastrointestinal side effects, and causes weight loss. Despite having the benefit of acceptable weight gain in the malnourished frail phenotype, insulin secretagogues like sulfonylureas or glinides are dangerous due to their significant risk of hypoglycemia. Additionally, there may be a high frequency of dementia in this age, which may be linked to irregular eating habits, and taking insulin secretagogues may greatly increase their risk of hypoglycemia. For many people with renal limitations, metformin might not be the best option. Additionally, pioglitazone raises the risk of volume overload, congestive heart failure aggravation, and lower limb oedema. Due to the negative side effects of insulin, such as the increased risk of hypoglycemia, unwanted weight gain, the difficulty of numerous injections, and the load of blood glucose monitoring, it has long been thought of as a last resort for hypoglycemic therapy following oral medicines. However, insulin may be a preferable early stage therapy in the AM phenotype of frailty. Anorexia and substantial weight loss define this phenotype [4,5].

Conclusion

A diverse metabolic spectrum that clusters at an anorexic malnourished (AM) phenotype at one end and a sarcopenic obese (SO) phenotype at the other appears to exist in frail, older adults with diabetes. Organ dysfunction and polypharmacy may restrict the use of oral hypoglycemic drugs in the AM phenotype. The negative effects of the new GLP-1RA and SGLT-2 inhibitors, such as greater weight loss, dehydration, hypotension, and an increased risk of falls, may also make them inappropriate for use in this frailty phenotype. As a result, using insulin early on may be an option for this vulnerable population of frail people. A single daily injection and reduced risk of hypoglycemia make long-acting insulin analogues seem to be safer choices. In this frailty phenotype, the negative effects of insulin-induced weight gain might be advantageous. Another benefit is that insulin has anabolic qualities that may improve muscle function, though additional large prospective studies are still needed to fully understand this significant effect. Therapy should aim to maintain a relaxed glycaemic control in patients with this frailty phenotype, avoid hypoglycemia as much as possible, and preserve a high quality of life.

Conflicts of Interest

The authors declare no conflict of interest.

References

1. Sinclair, Alan, Pouya Saeedi, Abha Kaundal, Suvi Karuranga, et al. "Diabetes and global ageing among 65–99-year-old adults: Findings from the International Diabetes Federation Diabetes Atlas, 9th edition." *Diabetes Res Clin Pract* 162 (2020): 108078.

2. Sinclair, Alan J., Ahmed H. Abdelhafiz, and Leocadio Rodríguez-Mañas. "Frailty and sarcopenia-newly emerging and high impact complications of diabetes." *J Diabetes Complicat* 31 (2017): 14650-1473.

3. Hanlon, Peter, Isabella Fauré, Neave Corcoran, Elaine Butterly, et al. "Frailty measurement, prevalence, incidence, and clinical implications in people with diabetes: A systematic review and study-level meta-analysis." *Lancet Health Longev* 1 (2020): e106-e116.

4. Sinclair, Alan J., A. Abdelhafiz, T. Dunning, M. Izquierdo, et al. "An International Position Statement on the Management of Frailty in Diabetes Mellitus: Summary of Recommendations 2017." *J Frailty Aging* 7 (2018): 10-20.

5. LeRoith, Derek, Geert Jan Biessels, Susan S. Braithwaite, Felipe F. Casanueva,

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et al. "Treatment of diabetes in older adults: An endocrine society clinical practice guideline." *J Clin Endocrinol Metab* 104 (2019): 1520-1574.

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