Chapter 4

THE IMPORTANCE OF AGEs IN DIABETIC KIDNEY DAMAGE

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DIABETES

Diabetes mellitus (DM) is a chronic endocrine disorder, characterized by hyperglycemia due to failure in insulin production [(1)]. Despite a remarkable improvement in treatment aimed at controlling glycemia, the gradual development of long-term complications of DM are the main causes of mortality in type 1 DM and type 2 [(2)]. Continuity of high blood glucose levels leads to the decomposition of homeostasis. it causes many damage including, nephropathy, retinopathy, cardiovascular diseases, hepatopathy [(3)]. Type 1 Diabetes is diabetes that develops due to damage to β cells in the pancreas [(4)]. Lymphocyte infiltration and edema occur in islets of Langerhans [(5)]. The most common type 2 diabetes in the community occurs when insulin secretion of β-cells in the pancreas is insufficient and cannot compensate for insulin resistance [(6,7)]. Gestational diabetes occurs as a result of the combination of increased insulin resistance and insufficient insulin production, which is seen for the first time during pregnancy. Malnutrition diabetes is related to nutrition and it is a type of diabetes that is treated with diet with insulin secretion caused by calcification and organic disorders in the

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Therefore, agents used as inhibitors for AGE and RAGE to improve the glutotoxicity caused by AGE and its receptor, RAGE, is predicted to be important in the treatment of diabetic complications [37].

CONCLUSION

AGEs and its receptor RAGE in diabetic kidney damage has been shown to have an important role. In order to reduce the amount of AGE in diabetic kidney damage, new treatment methods can be developed and kidney damage can be reduced. In order to reduce the amount of AGE in diabetic kidney damage, new treatment methods can be developed and kidney damage can be reduced.

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