

Effect of uric acid on blood glucose levels

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Abstrak

ABSTRACT

Uric acid as the final result of purine bases metabolism. In high level condition, uric acid enters the cell and act as oxidant, and acts as independent risk factor and predicts the incident of type 2 diabetes mellitus (T2DM). It may directly inactivate or through oxidative reaction that lower the nitric oxide (NO) level. Lower NO level will reduce insulin uptake in tissues and reduce in GLUT4 translocation in cell that will effect the blood glucose level. The High level of uric acid or hyperuricemia makes oxidative stress by inducing the production of reactive oxygen species (ROS) which interferes the insulin signalling pathway, creates inflammatory state that reduced the insulin sensitivity, blood glucose uptake and metabolism, also reducing the insulin production from pancreatic islet cells.