

ABSTRACT: ENNIS & IMNRH MEETING

Kidney Injury in Type 2 Diabetic: The Role of Berberine Treatment

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Abstract

Type 2 diabetes mellitus is a multifactorial disease. Prolonged hyperglycemia is one of the major determinants of long-term complications of diabetes. Diabetic nephropathy (DN) refers to a set of structural and functional changes which arise in response to chronic glycemic attack. Because diabetes is a progressive disease, pharmacotherapies with complementary mechanisms of action will be necessary to achieve glycemic goals.

Berberine is a natural alkaloid isolated from the *Coptis Chinensis*. Although routinely prescribe in Asian countries, an interest in its beneficial effects in metabolic diseases has been growing in the Western world over the last decade. The aim of our work was to analyze the effects of BBR in T2DM, specifically in several markers of diabetic nephropathy. To realize our work we analyzed the metabolic profile and several parameters (energy homeostasis, inflammation and fibrosis) in cortex kidney tissue of 12 month old rats.

To testing the effects of this natural compound in diabetic renal disease, we will go studding the profile metabolic of these animals. In renal tissue we will go evaluated the activity of two enzymes activated protein kinase (AMPK) and Sirtuin (Sirt)-1. Besides that, it is essential to study the role of several parameters in the evolution of renal disease like, Transforming growth factor (TGF)- β and pro-inflammatory cytokines

In conclusion, berberine is a valuable candidate for diabetic renal disease therapy?

Keywords: Type 2 Diabetes, Renal Disease, Berberine.

