Anti-inflammatory treatment of diabetes and metabolic syndrome or metabolic inflammatory syndrome

Changes in modern habits and environment produce metabolic products, including FFA and LPS, which polarize macrophages and induce chronic low grade inflammation, which damage tissues and organs and lead to metabolic diseases. Polarized macrophages not only participate in the pathophysiological process of AS, but macrophages can also invade the islets, adipocytes and liver tissues and damage these tissues and participate in the pathophysiological process of type 2 diabetes (T2DM), obesity and nonalcoholic fatty liver (NAFLD). AS, T2DM, NAFLD and obesity are closely related to chronic low grade inflammation and often accumulate, exist, or concurrency. Therefore, researchers compared AS, T2DM, NAFLD and obesity to 4 melons on a vine (chronic low inflammation), and proposed the concept and construction of metabolic inflammatory syndrome (Metabolic Inflammatory Syndrome, MIS). MIS is diagnosed as having 2 or more than 4 metabolic diseases above 4 in addition to the endocrine diseases of the known cause such as Cushing syndrome, Acromegaly and primary hypothyroidism. The concept of MIS is in line with the theory of system biology and integrated medicine, which is beneficial to the interdisciplinary, basic and clinical combination, and to create a new method for the effective prevention and treatment of metabolic diseases with the same treatment of different diseases and the same treatment with different diseases. MIS is the development of metabolic syndrome (MS). As early as the 60-70 years of twentieth Century, researchers have found that obesity, hypertension, dyslipidemia, and diabetes are more likely to be associated with cardiovascular disease, and the combination of these metabolic risk factors is called metabolic syndrome. In 1998, WHO expert group formally named this and put forward the diagnostic standard. Subsequently, various organizations discussed and revised their components. Microalbuminuria, impaired fasting blood glucose, or abnormality of glucose tolerance are still in the first 4 items, and the disputed risk factors include chronic low grade of inflammation (such as CRP, PAI-1), hyperuricemia, nonalcoholic fatty liver, and so on. According to the diagnostic criteria of MS, Cushing syndrome, Acromegaly and primary hypothyroidism and other diseases is also consistent with the diagnosis of MS, suggesting that MS concepts are to be discussed. The concept of MIS can better induce the metabolic diseases caused by chronic low grade inflammation. AS has become a major risk factor for human health. Therefore, screening and early diagnosis of AS is very important. The concept and diagnosis of MIS will encourage and promote T2DM, NAFLD and obese people to screen AS. Therefore, the concept of MIS is helpful for early diagnosis and prevention of AS.

Biography

Renming Hu got the M.D and PhD from Shanghai second Medical University in 1973 and 1988. He worked the department of Endocrinology affiliated to University of Chicago during 1988-1990. He finished post doctor training in University of California during 1990-1993 and worked Department of Endocrinology at UCI as an assistant researcher from 1994 to 1996. He worked in Rui Jin Hospital affiliated to Shanghai Second Medical University during 1996-2002 as vice director of Institute of Endocrinology of Shanghai and vice director of Department of Endocrinology. He was promoted as a professor in 1999. He was director of Department of Endocrinology of Huashan Hospital affiliated to Fudan University and The Institute of Endocrinology and Diabetology at Fudan University during 2002-2010. Now he is director of Institute of Endocrinology and Diabetology at Fudan University and director of Department of Endocrinology of Jinshan Hospital affiliated to Fudan University.

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