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Comment on: Prevalence of micro and macro vascular complications and their risk factors in type 2 diabetes in Saudi Arabian population: an analysis from SHIS

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We read with great interest the cross-sectional study by Ahmad et al[1] regarding the prevalence of both micro and macrovascular complications and their risk factors in a cohort of 1240 Saudi Arabian type 2 diabetic patients. The reported prevalence of micro and macrovascular complications was 6.05%, of which 3.5% had a myocardial infarction, 1.2% had a stroke, and 1.9% had renal failure. The results showed the age, smoking history, hypertension and low physical activity were more likely to develop the vascular complications.

Type 2 diabetes (T2DM) is a chronic disease resulting from a complex inheritance-environment interaction. Lifestyle changes, in particular obesity and sedentary life, have led to its increasing prevalence, as well as, to a worst course[2]. The overall prevalence is lower than that reported by previous reports[3-6] (though it should be calculated again as 1.2%+3.5%+1.9%=6.6%), and it may be due several biases affecting the analysis. Indeed, pre-diabetic patients, which are unlikely to develop diabetic complications without being affected by T2DM, were also included in the analysis. Moreover, it would be interesting to contextualize these data according to disease duration, as diabetic patients with a longer disease history are affected by more complications. Furthermore, diabetic retinopathy and peripheral artery disease were not evaluated. Improvements in diagnostic techniques have led to a better detection of diabetic complications and the rising of telemedicine screening has led to their better management, in particular during COVID-19 pandemic[7,8]. However, its usefulness should be tested in Saudi Arabian population, as they reported a high percentage of illiterate (33.8%). Another important issue is represented by the role of drug therapies. Metformin, as well as sulfonylureas, two old class drugs, have proven their efficacy, though, the advent of newer drugs with an increased cardiovascular efficacy and pleiotropic effect may also reduce both micro and macrovascular complications, as well as a reaching an optimal glycaemic and risk factors control[9-13]. Recent reports[14-17] have highlighted an important link between albuminuric chronic kidney disease and both retinopathy and increased cardiovascular risk, which may ameliorate with a holistic treatment of all targeted risk factors. Another important aspect is the link between T2DM and liver diseases and in particular the ability of the HCV virus to induce insulin resistance and diabetes. Adinolfi et al[18,19] evaluated the ability of direct acting antivirals to reduce the incidence of T2DM and major cardiovascular events by the clearance of HCV virus. Recently, transient elastography by Fibroscan has shown that hepatic fibrosis associated with a greater risk of micro and macrovascular complications in patients with T2DM[20]. Hence, the need of a multifactorial intervention to guarantee our patients the best care and reduce the onset of complications[5].

Conflict of Interest

The Authors declare that they have no conflict of interests.

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