Surging prevalence of cryptogenic cirrhosis in type-2 diabetes mellitus: An alarming fact or a big illusory bias?

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Background & Aim: A growing body of evidence considers the cryptogenic cirrhosis as the immediate offspring of Type-2 Diabetes Mellitus (T2DM). We would suggest that, the majority of reported cases of cryptogenic cirrhosis are actually the result of surreptitious or under-estimated alcohol consumption in conjunction with underlying metabolic syndrome, not the direct consequence or a chronic complication of T2DM. For further clarification of the issue, a population of T2DM patients living in a closed religious society where alcohol production, distribution and consumption were legally and ritually banned, were investigated for manifestations of cirrhosis and end-stage liver disease.

Materials & Methods: In a prospective observational study, 132 T2DM patients (43 males and 89 females) were consecutively enrolled. They were interviewed and carefully investigated for any stigmata of chronic liver failure and cirrhosis. Then, an all-inclusive panel of liver function tests completed with viral markers, immunological markers and abdominal sonography were carried out. Liver biopsy was considered once academically and ethically indicated.

Results: The average age of patients was 58±10.9 years (range, 31-83 years), and the duration of diabetes was 7.4±6 years (range, 1-25 years). BMI came out as 34.9±5.3 with mean waist circumference of 71.2±11.5 cm. To our surprise, from 132 T2DM patients only eight (6%) displayed mild to moderate abnormal liver enzyme levels, of which only 2 cases had liver enzyme levels of more than twice normal. With regard to our main concern, only two subjects (1.5%) manifested overt liver failure and cirrhosis, of which, one person tested positive for HCVAb and the other disclosed eventually to have been drinking alcohol heavily at younger ages for years while living abroad.

Conclusion: We would suggest, if alcoholic liver disease as a major confounding variable- becomes efficiently eliminated from the relevant studies, T2DM, per se, would seldom persist as a direct causative risk for cryptogenic cirrhosis. We believe that T2DM, NAFLD and cryptogenic cirrhosis are all the results of a superior pathogenic process, the metabolic syndrome or better to say insulin resistance syndrome. As a matter of fact, the terrifying prevalence of cryptogenic cirrhosis is the outcome of awful impact of hyperinsulinemia of metabolic syndrome on surreptitious and over-looked alcoholic liver disease.

Biography
Abbas Tavakolian Arjmand is an Associate Professor at Shahrood Azad University of Medical Sciences, Iran. His research interest is in metabolic syndrome, obesity, insulin/IGF-1 Receptor cross-talk and PCOS. He has wide range of publications in various national and international journals.

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