

Regulation of gene expression shown by YKL-40, PPAR gamma and CD36 in Indian diabetic patients. Its association with ankle-brachial pressure leading to cardiovascular risk

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India, Asia's most developing country with increased industrialization and modern lifestyle is facing huge problem of having the highest number of Type 2 Diabetics, which is estimated to increase by the year 2030. This has been associated with mortality due to cardiovascular diseases owing to increase in TG, low HDL and increased LDL with insulin resistance. The present study relates to the genetic susceptibility of adult cases and the cells involved in the mechanisms linking the development of cardiovascular complications in Diabetes. Following groups of patients viz AI-Diabetes >5 yrs with hypertension (N=15), A II- Diabetes < 2 yrs and no hypertension (N=15), BI- Patients with only hypertension (N=15) and BII- Healthy normals for comparison. Measurement of ankle brachial pressure (ABI), biochemical, hematological and gene expression studies (RT-PCR) for PPAR γ , CD36 and YKL-40 in all the groups. On analysis, we observed age was a significant factor along with systolic and diastolic blood pressure for A1 vs B II. FBS and PPBS were also found to be highly significant in between groups. Total cholesterol, High LDL and Low LDL were also highly significant with microalbumin as a risk factor. Gene expression studies showed reduction in the expression of CD36, PPAR gamma as well as YKL-40 in Group AI, AII as well as BI though group AI showed significant reduction in PPAR γ expression. According to ABI right brachial and left ankle pressure, with aortic systolic pulse pressure and vascular age were found to be the most important parameters for cardiovascular (CV) risk.

Biography

Sudha S. Deo has completed her Ph.D. and is in the field of Immunology for the past 34 yrs. Worked in prestigious Research Institute of Cancer and Children Hospital in Mumbai. Has knowledge and experience in the field of Cancer immunology, Pediatric immunology as well as Autoimmune and Infectious Immunology. Presently working as a Senior Scientist and guide of Mumbai University for M.Sc and Ph.D. students. Completed 31 projects independently with about 25 publications in National and International reputed journals. Also obtained awards for Poster presentation at National Conferences. Awarded a silver plaque with cash prize and certificate for original manuscript in international recognized journal. Biography entered in the Marquis Who's Who in America and World.

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