

GIGH & AIIMS join hands to prevent type 2 diabetes

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The George Institute for Global Health has teamed up with the All India Institute of Medical sciences (AIIMS) to conduct research that will explore whether a lifestyle modification program can delay the onset of type 2 diabetes in women with gestational diabetes mellitus (GDM) in South Asia.

The research involves conducting a randomized trial of a lifestyle modification program to determine whether it can be applied and affordably brought to scale in Bangladesh, Sri Lanka and India.

"The development of diabetes in women with GDM can be prevented or delayed. It has been shown in research settings that healthy diet and physical activity aimed at weight reduction can delay or prevent the development of diabetes in women with GDM, but we do not know how to best achieve such behavioral changes" says Professor Nikhil Tandon, head, Department of Endocrinology at AIIMS.

"If the intervention is found to be effective and scalable, the development of Type 2 Diabetes could be delayed or prevented in more than a quarter of a million young South Asian women over a 5-year period," said Professor Anuskha Patel, chief scientist, The George Institute for Global Health and Professor of Medicine at the University of Sydney.

Type 2 diabetes is the world's fastest growing chronic disease. Over 347 million people have diabetes with more than 80 percent of these living in low-middle income countries.

GDM is diabetes developing for the first time in pregnancy. In pregnancy, the placenta makes hormones that helps the baby to grow and develop. Gestational diabetes occurs because these hormones also block the action of the mother's insulin. The hormones of pregnancy cause resistance to the actions of insulin and lead to higher blood sugar levels in women who have risk factors for diabetes.

Previously thought to be a relatively benign condition, it is now known that having GDM puts women at high risk of subsequently developing Type 2 diabetes - a condition that needs lifelong treatment and is associated with a number of serious complications.

The feasibility study conducted in India in 2011 and led by Professor Tandon was supported by a BRIDGES Grant from the International Diabetes Federation. This study, along with behavioral interventions shown to prevent weight gain in pregnant women and young mothers in Australia, have laid the foundation of the intervention that will be developed and evaluated in 1400 women from India, Bangladesh and Sri Lanka. Collaborating partners include Monash University in Australia, The University of Kelaniya in Sri Lanka, icddr,b in Bangladesh, and the Centre for Chronic Disease Control, India.

Under the auspices of the Global Alliance for Chronic Diseases (GACD), the Indian arm of the research is being supported by the Indian Council of Medical Research (ICMR), while the Australian National Health and Medical Research Council is funding the research in Sri Lanka and Bangladesh.

According to Professors Tandon and Patel, the GACD grants will make an enormous difference in treating, preventing and managing Type 2 Diabetes, especially in areas with limited resources and poor access to essential healthcare.