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Modification of the gut microbiome with diet
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Risk factors for diabetic foot ulcers in type 2 diabetes

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Diabetes among the poor – more questions than answers

The increasing prevalence and incidence of diabetes (particularly type 2) in middle- and low-income countries raises some questions of possible attributable pathophysiology, aetiology, and risk factors. It is known that obesity, inactivity/sedentary lifestyle, as well as unhealthy diets are the main risk factors. In industrialised countries, it is obvious that these risk factors prevail and represent a real challenge to health workers, patients, and families alike. But a most important question is: why is diabetes a prominent health problem in developing countries when the people rely mostly on their physical activities and the major foods are not processed?

Some researchers and epidemiologists have established a relationship between diabetes and some endemic infectious diseases such as HIV. Also, some demographic changes have been thought to implicate and contribute to the disease (e.g. ageing). Also, dwellers in urban areas of developing countries are more vulnerable to the disease.

So, what is unique or what is peculiar about these countries that contributes to increasing type 2 diabetes prevalence? At the level of foetal development, could it be because of the changes and differences to the uterine and the external environment in later life ('foetal programming')? Could it be due to endemicity of malnutrition, starvation, and/or environmental changes and climate change? Is it also researchable to think about psychological wellbeing and the stressful daily life in search or survival and/or the continuous losses of beloved ones as a result of high mortality rates? What about the nutritional values and impact of their foods? Could the use of more carbohydrates and starchy foods have a role in aetiology? The majority of these populations depend on either one or a combination of the following - rice, maize, cassava, potatoes, sorghum, and wheat. What about other eating habits, such as taking more salt, or consuming additional amounts of animal fats?

Perhaps, it is all due to poverty and poor governance, i.e. poor health services and miserable daily living in terms of food choices and affordability. There are some communities at the extremes in regard to the availability and affordability of foods. For instance, some populations do take more meat almost every day (e.g. Arab countries) while othrs are either selective or compulsory vegatarians (e.g. sub-Saharan Africa and some Indian communities).

Last, but not least, diabetes seems to impose more and more questions about aetiology, risk factors, and vulnerability. We must strive to find answers to these questions. Dr Abbas Assayed, Medical Director, Mama Khadija Clinic
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