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Diabetes : A Growing Challenge in Obesity

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Short Commentary

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ABSTRACT

There are three major types of the diabetes: type 1, type 2, gestational diabetes. Type 1 diabetes starts from childhood and pancreas stops producing insulin. Type 2 diabetes our body can't use the insulin it makes. Type 3 diabetes Diabetes when you're expecting affects about 4% of all U.S. pregnancies [1]. It's caused by placenta hormones or by too little insulin. High blood sugar from the mother causes high blood sugar in the baby. This results in growth and development problems if left untreated [2].

INTRODUCTION

Weight gain is common in people who take insulin to treat diabetes. As a result more insulin we use to maintain your blood glucose level, rather than eliminated from our body the more glucose is absorbed into your cells. The absorbed glucose is stored as fat, which makes you gain weight. Globally, the prevalence of chronic, noncommunicable diseases is increasing at an alarming rate [4-6]. About 18 million people die every year from cardiovascular disease, for which diabetes and hypertension are major predisposing factors. Propelling the upsurge in cases of diabetes and hypertension is the growing prevalence of overweight and obesity — which have, during the past decade, joined underweight, malnutrition, and infectious diseases as major health problems threatening the developing world.

Key Insights

The increase in the prevalence of type 2 diabetes is closely linked to the upsurge in obesity. About 90% of type 2 diabetes is attributable to excess weight. Furthermore, approximately 197 million people worldwide have impaired glucose tolerance, most commonly because of obesity and the associated metabolic syndrome. This number is expected to increase to 420 million by 2025[6-10]. The serious cardiovascular complications of obesity and diabetes could overwhelm developing countries that are already straining under the burden of communicable diseases[11,12]. The risk of cardiovascular disease is considerably greater among obese people, and this group has an incidence of hypertension that is five times the incidence among people of normal weight. Hence, overweight and obesity are contributing to a global increase in hypertension: 1 billion people had hypertension in 2000, and 1.56 billion people are expected to have this condition by 2025 [13,14].

The serious cardiovascular complications of obesity and diabetes could overwhelm developing countries that are already straining under the burden of communicable diseases. The risk of cardiovascular disease is considerably greater among obese people, and this group has an incidence of hypertension that is five times the incidence among people of normal weight [15].. Hence, overweight and obesity are contributing to a global increase in hypertension: 1 billion people had hypertension in 2000, and 1.56 billion people are expected to have this condition by 2025 [16]. This increase will have a disproportionate effect on developing countries, where the prevalence of hypertension is already higher than that in developed countries and where cardiovascular disease tends to develop earlier in affected persons. The effect of diabetes on complications of cardiovascular disease is also more severe among members of most ethnic minority groups in Western countries as well as among the populations of developing countries, where an increased waist-to-hip ratio is a strong predictor of ischemic heart disease and stroke [17-23]. The estimated risk of cardiovascular disease is higher among South Asians than

among white Westerners or persons of African origin; this difference is attributable to earlier onset and later detection of diabetes and to higher blood pressure.

CONCLUSION

Obesity, diabetes, and hypertension also affect the kidneys. Diabetic nephropathy develops in about one third of patients with diabetes, and its incidence is sharply increasing in the developing world, with the Asia–Pacific region being the most severely affected. According to a survey published in 2003[24], diabetic nephropathy was the most common cause of end-stage renal disease in 9 of 10 Asian countries, with an incidence that had increased from 1.2% of the overall population with end-stage renal disease in 1998 to 14.1% in 2000. In China, the proportion of cases of end-stage renal disease that were caused by diabetic nephropathy increased from 17% in the 1990s to 30% in 2000. In India, diabetic nephropathy is expected to develop in 6.6 million of the 30 million patients with diabetes. These statistics raise the daunting prospect of an epidemic of diabetic nephropathy in a developing world unable to cope with its repercussions — a world where end-stage renal disease is a death sentence [25].

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