EDITORIAL

Bariatric surgery, addictive-like eating behaviour and obesity

The obesity epidemic in South Africa is completely out of hand. The prevalence of obesity (BMI ≥30 kg/m^2) in women increased from 34% in 1995[1] to 39% in 2013 while an additional 25% of women were overweight (BMI 25-29.9 kg/m^2)[2]. The corresponding rates for obesity and overweight among men were 11% and 20%[2]. Adolescents between the ages of 15 and 17 years were included in these data. Of all women in sub-Saharan Africa, South African women have the highest prevalence of obesity[3]. The contribution of obesity to the burden of disease in South Africa is staggering. In 2000, 87% of type 2 diabetes, 68% of hypertensive disease, 61% of endometrial cancer, 45% of ischaemic stroke and 38% of ischaemic heart disease were attributed to excess body weight.[4] In the same year 7% of all deaths in South Africa was attributed to obesity-related co-morbidities.[4] Gestational diabetes with its foetal complications are also strongly and positively linked to overweight and obesity. In this edition of the Journal (p 9-14) Hall et al reports that overweight or obesity was present at booking in 95% of women who went on to develop gestational diabetes. It is a sobering thought that the unbridled increase in the prevalence of obesity in the US may soon counteract the steady rise in life expectancy observed over the last two centuries.[5]

Obesity, the most visible public health problem, is considered a multifactorial condition, caused by a complex interaction between the environment, genetic predisposition, and human behaviour.[6] Although pharmacological and nutritional weight loss programs have assisted people with obesity to lose weight, typically 30-35% of weight lost is regained during the first year after treatment.[7] This observation has led to the rise in popularity of bariatric surgery as an effective and relatively safe procedure to manage severe obesity in selected individuals resulting in mostly durable weight-reducing effects.[8] The observation that bariatric surgery may reverse or cure type 2 diabetes in the majority of severely obese patients, added even more impetus to find a suitable surgical option.[9] This unexpected finding stimulated renewed interest in the role of gut hormones in the pathophysiology of type 2 diabetes.[10,11] Unfortunately, approximately 20% of patients do not achieve lasting weight loss after bariatric surgery, or regain weight which is regarded as a serious complication.[12]

In this issue of the Journal (p 16-27), Van der Merwe et al reports on the baseline characteristics and three-year outcomes of metabolic surgery in a large cohort of South Africans. In this carefully documented prospective study the outcomes in terms of complications and reduced co-morbidities are by and large in keeping with the results reported from similar centres of excellence across the globe.[13,14] The true cost of uncomplicated bariatric surgery in South Africa is not known but is most likely in excess of R130 000.[15] At least one meta-analysis showed that bariatric surgery is effective for the improvement or resolution of co-morbidities and significantly reduces drug use and costs.[16] Another meta-analysis showed that although physical quality of life following bariatric surgery improved significantly, improvement in mental quality of life lagged behind.[17] The authors of this meta-analysis recommend that psychological wellbeing should be assessed more rigorously before and after surgery.

Bariatric surgery has established itself as a cost-effective modality in the management of a severe obesity, with or without co-morbidities in economically advantaged individuals. Bariatric surgery is, however, out of reach and not a realistic treatment option for the majority of deserving individuals in a resource-constrained health care environment such as South Africa. In addition, bariatric surgery does not address the basic pathophysiology of obesity, i.e. the imbalance between energy intake and expenditure in all individuals with a biological predisposition to obesity.[6]

At least four long-term strategies are available in the management of obesity: prevention, weight maintenance, management of complications and weight loss.[18] Prevention of obesity is a highly complex endeavour. Prevention requires a concerted action at different levels, especially in developing countries simultaneously engaged with the nutrition transition.[19] In contrast to other chronic diseases, such as type 2 diabetes and hypertension, effective medical and nutritional management of obesity has been an elusive goal, frustrating health care practitioners and patients alike.[6] This failure requires a paradigm shift. The recognition of addictive-like eating behaviour as an important contributing factor to the epidemic of obesity may create new research opportunities and management strategies for this important public health challenge.[20]

Health Minister Aaron Motsoaledi took the initiative and convened the first ever South African Summit for the Prevention and Control of Non-Communicable Diseases in September 2011. Later during the same month South Africa supported the resolution adopted by the United Nations on the Prevention and Control of Non-Communicable Diseases. This was followed by the release of government's Strategic Plan for the Prevention and Control of Non-Communicable Diseases (2013-17).[21] One of the goals of this comprehensive Strategic Plan is to reduce the percentage of people who are overweight and/or obese by 10% by 2020. A further goal is to increase the percentage of people whose blood pressure, diabetes and asthma are controlled by 30% by 2020. The implementation of the Strategic Plan has now become a matter of urgency.

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References available on request.