



To News Editor  
For Immediate Release

13 May 2008

**Weight Reduction Surgery Offers Effective Treatment of Type II Diabetes  
in Severely Obese Hong Kong Chinese**


While rapid growth and development in the economy of Hong Kong and mainland China bring changes in diets and sedentary lifestyles, obesity and its associated diseases are increasingly a health and societal burden to the region. As diabetes mellitus is closely associated with obesity, a new term “diabesity” has been coined to describe their strong causal-relationship. A recent study estimates that 23% of Hong Kong Chinese population has impaired glucose tolerance and the risk of diabetes mellitus increases by 4 times if BMI exceeds 30.

While life-style modification, exercise, dietary training and medical therapy may be effective in slightly overweight people, those with severe obesity often fail to respond to these simple measures. Bariatric surgery has been proven to be the most effective and long-lasting treatment of such a condition. It is becoming one of the most common operations in the West and gaining popularity now in Asia.

Professor John B. Dixon, Head of Obesity Research Unit, Monash University, Melbourne, Australia has recently published his data in the *Journal of American Medical Association*. He found that weight reduction surgery, such as laparoscopic gastric banding, is more effective than conventional medical therapy in treating type II diabetes of the severely obese (BMI 30-40). According to his research, remission of type II diabetes was observed in about three-quarter of those patients who had received surgery.

Since 2002, The Chinese University of Hong Kong (CUHK) has introduced laparoscopic gastric banding as one of the weight reduction operations. In 2005, CUHK also introduced endoscopic placement of intragastric balloon as an alternative weight reduction procedure for those patients who are not suitable for surgery or who require pre-operative weight reduction to reduce operative risk. However, the use of intragastric balloon is a temporary measure and it is needed to be removed after 4-6 months.

The Department of Surgery and the Department of Medicine and Therapeutics of the Faculty of Medicine at CUHK had recently completed a study assessing the effectiveness of intragastric balloon and laparoscopic gastric banding in achieving long-term weight reduction and diabetes control for the severely obese patients. The results of 122 patients having intra-gastric balloon and 73 patients undergoing gastric banding in the Prince of Wales Hospital and Pamela Youde Nethersole Eastern Hospital were analysed.



For patients treated with intragastric balloon, the balloon was removed at 6 months. Of these 122 patients, 28% (34 patients) finally went on for definitive surgical treatment. Among the 88 patients who were treated with BIB alone, we observed a mean weight loss of about 10kg at 6 months and the diabetes control had improved in about 40% of patients. However, upon further follow up at 18 months, only about 30% of patients maintained their weight loss for more than 10% of their initial weight. Weight rebound occurred to the remaining 70%.

On the other hand, patients received laparoscopic gastric banding were able to maintain their weight loss. At 2 years, the mean loss is about 20kg which is equivalent to an excessive weight loss of 35%. Among this group of patients, 25 of them suffered from impaired glucose tolerance or diabetes mellitus at the outset. After the banding operation, 72% of them showed significant improvement of glycaemic control and about 52% of them did not need any diabetic medication.

In conclusion, the prevalence of diabetes mellitus among obese Hong Kong Chinese (BMI >30) is alarmingly higher than that of the normal population. Bariatric surgery, such as laparoscopic gastric banding, offers effective control for their blood glucose and body weight. Such an effect, however, is not sustained by the use of intragastric balloon method.