Mini gastric bypass–one anastomosis gastric bypass (MGB-OAGB) is now the 3rd most commonly performed bariatric procedure in the world, and is believed by some of its proponents to be equal to, if not better than, Roux-en-Y gastric bypass (RYGB). Bariatric News spoke with Dr Karl P Rheinwalt (Head of Department of Obesity, Metabolic and Plastic Surgery, St Franziskus-Hospital Cologne, Cologne, Germany, President 2019 of the International MGB-OAGB-Club and Congress-President of the Annual MGB-OAGB-Consensus Conference 2019), who discussed the merits of MGB-OAGB and the benefits of banded MGB-OAGB as a revision procedure to reduce instances of dumping syndrome and weight regain.

Dr Rheinwalt began by stating that MGB-OAGB is the preferred primary procedure at his institution, unless there are contra-indications to laparoscopic bypass surgery (major previous surgery on the small bowel, Crohn’s disease, current smokers, liver cirrhosis etc) and/or the patient has a preference for another procedure. As a bypass procedure, he said that the MGB-OAGB is easier to perform than the RYGB and the majority of the studies so far have shown that MGB has a significantly shorter operating time. Of all the bariatric procedures, MGB-OAGB is also an attractive procedure because the MGB is relatively simple to revise or perform as a revision procedure, he added.

"The evidence so far shows that MGB-OAGB also results in fewer complications and the same, if not more, weight loss compared with RYGB, as well as improvements in comorbidities. In my opinion, MGB-OAGB is at least as good, if not better than, the RYGB," Dr Rheinwalt said. "MGB-OAGB has fewer complications, particularly as we do not have to deal with a second anastomosis and possible issues of stenosis, we have fewer instances of internal hernia and around half the number of patients with accelerated gastric pouch emptying, compared with RYGB patients. I think MGB is gaining in popularity because it is perhaps a ‘compromise’ procedure with strong enterohormonal effects, a small degree of restriction and mild to moderate malabsorption."

He cited his centre’s own experience where only 5% of MGB-OAGB patients have reported episodes of symptomatic accelerated gastric pouch emptying (dumping syndrome), compared with approximately 6% of RYGB patients.

What can account for the differences in rates of ‘dumping syndrome’? According to Dr Rheinwalt one possible explanation was put forward by Professor Jacques Himpens – following experimental studies (unpublished data) – who suggested that for the body to absorb carbohydrates and sugars one requires a sodium glucose pump in the small bowel wall. The sodium is provided via bile fluid, however, following RYGB, the sugars are deposited into the alimentary limb, and therefore cause early dumping symptoms such as dizziness, sweating, tachycardia etc. In the MGB-OAGB procedure, there is no alimentary limb so the carbohydrates and sugars are mostly absorbed by the sodium.

"We have observed similar rates of late (one hour after eating) dumping syndrome or postprandial hypoglycaemia in our MGB-OAGB and RYGB patients, compared to twice the rate of early dumping in RYGB patients vs MGB-OAGB patients," he explained. "This of course is better for the MGB-OAGB patients in terms of quality of life and possible revision procedures."

Weight regain
Dr Rheinwalt said there are several causes for weight regain following bariatric surgery adding that there is a tendency among some surgeons to blame the patient for non-compliance to post-surgical treat regimes claiming they are not exercising and are eating the wrong types of food.

"However, I believe there are several genetic causes – in the same respect that after bariatric surgery there are responders and non-responders – some patients are more prone to weight regain, whereas others have long-term sustained weight loss. Therefore, I think we have to accept that some patients are going to have a ‘second step’ procedure after their primary operation."

He explained most of the banded-MGB procedures in his centre are for revision procedures to treat dumping and in such cases, he places the MiniMizer Ring (Bariatric Solutions) on the lower part of the gastric pouch to eliminate the dumping. The Ring also has the benefit of adding an extra element of restriction, thereby possibly preventing dilatation of the gastric pouch and weight regain.

"If we do not perform banded-MGB as a primary procedure because in my opinion, we do not have evidence to support banded-MGB as a first procedure. I do believe there is good evidence to support primary banded-RYGB as no banded RYGB in terms of long-term weight loss and resolution of comorbidities. In addition, I also believe there is good evidence to support placing a ring around the gastric pouch for revision RYGB procedure to prevent dumping and weight regain. But as a primary procedure, we need more comparative, long-term data to support primary banded-MGB. One revision option for MGB is to lengthen the biliopancreatic limb, however if the patient has deficiencies in iron and other micronutrients then lengthening the limb is not an option and the banded-MGB is a better option."

Learning curve
"We have had some instances of food intolerance, so we have had to adjust the diameter of the Ring. In our experience, we have learnt to leave a greater space between the Ring and the Pouch - so if you initially think to close the Ring at 6.5 cm, you should probably close it at 7 cm and so on. This has reduced our centre’s instances of food intolerance substantially."

He said that the procedure to fix the MiniMizer Ring is quite straightforward and the Ring has several innovate design enhancements that facilitates ease-of-use. For example, the tip of the Ring has pre-formed soft tip that allows it to pass safely behind the posterior wall of the gastric pouch. He advises users not to create too large a space behind the gastric pouch, rather ‘a small pathway should suffice’, to avoid the risk of slipping. As the device does not add direct pressure to the pouch, there have been no instances of device penetration.

"In summary, I believe there is still a lack of evidence to support primary banded-MGB and its use is still controversial, but for me there is an advantage of placing a Ring in some revision procedures particularly to prevent dumping and weight regain." Dr Rheinwalt concluded. "However, we will discuss this and many other questions and controversies at the forthcoming 6th Annual Consensus Conference of the MGB-OAGB International Club, in Cologne, Germany, from 20-21 June, and I look forward to welcoming colleagues from around the world to this exciting meeting."

For more information about meeting in Cologne, please visit: http://www.mgb-oagb.com/