

## Cross Validation of the Moorehead-Ardelt Quality of Life Questionnaire II with WHOQOL and SF36 and Clinical Application

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**Background:** Obesity has become a major worldwide public health issue. There is a need for tools to measure patient reported bariatric outcomes. The Moorehead-Ardelt Quality of Life Questionnaire II (MA-II) contains six items. The objective of this study was to translate the MA II into Chinese and validate it in patients with morbid obesity.

**Methods:** The MA-II was translated into Chinese and backtranslated into English by two language specialists to create the Taiwan version, which was validated by correlations with two other generic questionnaires of health-related quality of life (HRQOL), Medical Outcomes Study 36-Item Short-Form Health Survey (SF-36), and World Health Organization Quality of Life (WHOQOL)-BREF Taiwan version. The convergent validity was accomplished by a series of Spearman rank correlations. Reliability of the MA-II Taiwan version was determined by internal consistency obtained by Cronbach alpha coefficient and test-retest reliability obtained by intraclass correlation coefficient.

**Results:** One hundred subjects with morbid obesity were enrolled to test the MA II Taiwan version convergent validity and internal consistency. Test-retest studies (2 weeks apart) were applied to 30 morbidly obese patients. Satisfactory internal consistency was demonstrated by a Cronbach alpha coefficient of 0.79. Good test-retest reliability was shown by intraclass correlations ranging from 0.73 to 0.91. The total sum of MA-II scores was significantly correlated with all four domains of the WHOQOL-BREF and two major components of SF-36. All six MA-II items showed significant correlations with each other, and total sum of MA-II scores was negatively correlated with body mass index, indicating a one-dimensional questionnaire of HRQOL.

**Conclusions:** The MA-II Taiwan version is an obesity-specific questionnaire for QOL evaluation with satisfactory reliability and validity. It has the advantages of extensive evaluation for HRQOL, cross-cultural application, rapid completion, high response rates, and an advanced scoring system.

## Change in Quality of life at 12 months after Bariatric Surgery in Morbidly Obese patients

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**Background** Laparoscopic Roux-en-Y gastric bypass (LRYGB) is the gold standard method in Bariatric Surgery. However, considering that gastric cancer is one of the most common diseases in Asia, Kasama has introduced Laparoscopic Sleeve Gastrectomy with Duodenojejunal Bypass (LSG/DJB). Now LSG/DJB is becoming an effective procedure for the treatment of morbidly obese patients in Japan. In this study, we compared Quality of Life (QOL) and excess weight loss (EWL) 12 months after LRYGB and LSG/DJB. **Methods** We compared 38 patients who underwent LRYGB (Group B) and 25 patients who underwent LSG/DJB (Group SB) between June 2006 and March 2009. QOL factors assessed were Social Life, Confidence, Figure, Depression, Healthiness, Activity and Exercise. We had given Q&A sheets to the patients and asked them to evaluate their improvement in these factors. We have created an Improvement Score from 1 to 5 (5 being the best condition). We have also analyzed EWL in both groups. **Results** 12 months after surgery, all QOL factors were improved in both groups. There was no significant difference in mean score of QOL in all factors between Group B and Group SB. There was no significant difference in EWL between both groups. **Conclusion** LRYGB is considered to be the most popular procedure in Bariatric Surgery, but we suggest that LSG/DJB could also be an effective procedure from a view point of QOL and EWL.

## An Individual Surgeon versus a Team Approach: Surgical Outcomes of Laparoscopic Roux-en-Y Gastric Bypass

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**Purpose:** Laparoscopic Roux-en-Y gastric bypass (LRYGB) has been shown to improve both the health and quality of life of morbidly obese patients. We studied to compare the efficacy and safety of using a team approach to LRYGB versus an individual surgeon. **Materials and Methods:** Data were retrospectively collected from 200 consecutive patients undergoing LRYGB for morbid obesity between August 2005 and February 2008. Group I (GI) and Group II (GII) included 50 patients who underwent surgery and were cared for by the same surgeon. Group III (GIII) included the next 100 consecutive patients, who underwent LRYGB by the same surgeon, but were cared for by a dedicated bariatric team. **Results:** Among the 76 males (38%) and 124 females (62%) in the study, excess weight loss at 1 and 3 months follow-up did not differ; however, it was significantly different at 6 months and 12 months. At mean follow-up, 30% in GI, 6% in GII, and 8% in GIII experienced complications. Most complications in the GI group occurred early and were related to surgical technique, while in groups GII and GIII, complications related to technique were markedly reduced. Males were 4.57 times as likely as females to have complications related to bariatric surgery. **Conclusions:** A team-based approach is a better option for patients undergoing LRYGB than is cared for by a single surgeon. With an experienced bariatric surgeon, the team approach resulted in shorter operative times and hospital stays, better weight loss without increased complications.

## Difference Between Laparoscopic Sleeve Gastrectomy and Roux-en-Y Gastric Bypass Regarding Weight Loss Effect and Amount of Food Intake According to Level of BMI

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### <Background>

Laparoscopic sleeve gastrectomy (LSG) for morbidly obese patients is gaining popularity in Japan. Its indications and long-term results are currently under evaluation, whereas laparoscopic Roux-en-Y gastric bypass (LRYGB) is the golden standard procedure with good long term outcomes. In addition, some articles reported that LSG could not lead to sufficient weight loss for super morbid obesity. This study aimed to compare the difference of excess weight loss (EWL) and amount of food intake of patients with BMI < 50 or  $\geq$  50 between LSG and LRYGB.

### <Methods>

For this study, 123 patients who underwent LRYGB (48patients) or LSG (75 patients) were retrospectively analyzed for 24 months after surgery. There are 101 patients with BMI < 50 in LSG group (n=60) or LRYGB group (n=41), and 22 patients with BMI  $\geq$  50 in LSG group (n=15) or LRYGB group (n=7). We compare the EWL and the amount of food intake after LSG to those after LRYGB according to BMI. We analyzed the amount of food intake by means of diet recall and a questionnaire. We defined the preoperative amount of food intake as 100% and calculated the rate of change after surgery.

### <Results>

As for BMI < 50, the percentage of EWL and the rate of change of food intake at 24-month follow up point were 81.7% and 52% in LSG group and 82.8% and 47% in LRYGB group. As for BMI  $\geq$  50, the percentage of EWL and the rate of change of food intake at 24-month follow up point were 29.8% and 54% in LSG group and 62.3% and 58% in LRYGB group. This data show that the EWL of patients with BMI  $\geq$ 50 after LSG at 24-month follow up point is not comparable to the other results, but the rate of change of food intake of the same group is comparable.

### <Conclusion>

As for BMI  $\geq$ 50, we need to restrict the amount of food intake after LSG more than LRYGB for the purpose of bettering the EWL. However, it means that LSG can be a standalone procedure for morbidly obese patients with BMI<50 as well as LRYGB, but LSG is not expected to be performed as a solo procedure for the patients with BMI  $\geq$ 50.

## Evaluation of the Clinical Pathway for Laparoscopic Bariatric Surgery

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<Background>Clinical Pathways (CPs) are comprehensive systematical patient care plans for specific procedures. The CPs for morbid obesity were implemented in our department in February 2006. The aim of this study is to evaluate the CPs for laparoscopic bariatric surgery. <Methods>The CPs were applied to the 189 patients who underwent bariatric surgery. The assessment criteria included degree of compliance with hospital stay, indicators of clinical care effectiveness, and comparison with the other CP reported in Pubmed. <Results>Fig. shows the number and rate of noncompliance with hospital stay in different bariatric procedures. The only reason for noncompliance with hospital stay was patient-dependent causes. There was no staff-related or institution-related reason. This result was almost similar to that reported in the past from Spain. <Conclusion>Our data show that compliance with hospital stay depends on the difficulty of bariatric surgery. From the point of view of the reason of noncompliance with hospital stay, clinical pathway which is controlled by a team with a wide experience in bariatric surgery can offer our patients with morbid obesity bariatric surgery with the smallest possible range of complications.

Laparoscopic Procedure <sup>↵</sup>	Number of noncompliance /total number of procedure <sup>↵</sup>	Rate of noncompliance <sup>↵</sup>
Adjustable Gastric Banding <sup>↵</sup>	0/17 <sup>↵</sup>	0% <sup>↵</sup>
Roux-en-Y Gastric Bypass <sup>↵</sup>	13/51 <sup>↵</sup>	25.49% <sup>↵</sup>
Sleeve <u>Gastrectomy</u> <sup>↵</sup>	13/81 <sup>↵</sup>	16.04% <sup>↵</sup>
Sleeve with Duodenal <u>Jejunal</u> Bypass <sup>↵</sup>	10/40 <sup>↵</sup>	25.00% <sup>↵</sup>
Total <sup>↵</sup>	36/189 <sup>↵</sup>	19.04% <sup>↵</sup>