Single Incision Transumbilical Laparoscopic Sleeve Gastrectomy (SITU-LSG), How I Do it?

*Bariatric & Metabolic International Surgry Center, E-Da Hospital, Kaohsiung, Taiwan *Department of General Surgery, E-Da Hospital, Kaohsiung, Taiwan

[‡]Department of Chemical Engineering, Institute of Biotechnology and Chemical Engineering, I-Shou University, Kaohsiung, Taiwan

Chih-Kun Huang, MD^{*†‡}, Chi-Hsien Lo, MD^{*}, Jer-Yiing Houng, PhD[‡], Yaw-Sen Chen, MD[†], Po-Huang Lee, MD[†]

BACKGROUND: Sleeve gastrectomy has been recently proposed as a sole bariatric procedure because of the resulting considerable weight loss in Asian morbidly obese patients. Traditionally, laparoscopic sleeve gastrectomy requires 5-6 skin incisions to allow for placement of multiple trocars. With the progression of scarless concept, multiple abdominal procedures have been performed using a single incision trans-umbilical (SITU) incision, with good cosmetic outcomes.

METHODS: We retrospectively reviewed our patients receiving sleeve gastrectomy from November 2008 till September 2010 . A total of 27 consecutive patients underwent laparoscopic sleeve gastrectomy with single incision and trans-umbilical approach. Three trocars were inserted via the umbilical incision after pneumoperitoneum.

RESULTS: Of the 27 patients, 19 were women and 8 were men, with a mean age of 32 years (range, 20-46). The mean preoperative body mass index was 35.9 kg/m (range, 32.4-42.3). The mean operative time was 70 minutes (range, 30-170). Intra-operative novel liver suspension tape was used in all patients, and no perioperative or postoperative complications happened. No conversion or need for adding trocar during the procedure was found. No mortality was noted.

CONCLUSIONS: SITU laparoscopic sleeve gastrectomy is safe, technically feasible, and reproducible. Intra-operative modification of liver retraction is the key element in improving surgical field and decreasing operation time.