LIVER RETRACTION WITH VERSALIFTER BAND® FOR SINGLE PORT AND MULTIPORT GASTRIC BYPASS AND SLEEVE GASTRECTOMY- PROSPECTIVE PILOT STUDY

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1. Objectives:
Retracting the liver in bariatric surgery is a crucial part and often represents the need for a second assistant or an expensive retractor. Aim: No-trocar liver retraction using Versalifter Band® may overcome the difficulties in retracting voluminous livers by a single application at the beginning of the procedure. A preliminary clinical experience with the new liver retractor device is described, in a series of 4 patients.

Fig. 1. Application of VERSALIFTER Band® for liver retraction in Sleeve Gastrectomy. Fixation of the device to the crura. Fig. 2-3. Fixation of VERSALIFTER Band® to the anterior abdominal wall, thus lifting the left lobe. Fig. 4. Section of gastric resection with solely retraction through the device.

Fig. 5. Retracting liver to the anterior abdominal wall.

Fig. 6. Application of T-PEA LIFTER for Sleeve Gastrectomy. The greater curvature is retracted and fixed to the anterior abdominal wall.

Fig. 7. Application of VERSALIFTER Band® for Gastric Bypass (Courtesy Salvador Morales). Fig. 8. Final aspect using a 4-trocar technique.

2. Methods
The study was conducted at Klinikum Bremerhaven Reinkenkeide, Bremerhaven, Germany. This technique of liver retraction was clinically applied in 4 patients with morbid obesity and indication for bariatric surgery. Patients were submitted to general anesthesia, and installed in a supine, using a reverse Trendelenburg position. Accessing directly the cavity through a visible port trocar allowed for fast and safe portonical entry. Operator was positioned on the right side of the patient, and first assistant on the left side holding the camera. A second assistant was not necessary. Insufflation of the cavity with 14mmHg of CO2 was maintained. A technique with 4-trocar was used, no further access was needed for liver retraction. Project Description: All patients from both genders with body mass index (BMI) between 41-55kg/m2 with indication for bariatric surgery were prospectively documented. Instead of usual retraction, the device was applied in the crura and at the anterior parietal wall of the abdomen and stretching the band under the left lobe of the liver. Adding a T-PEA LIFTER Device promoted also an efficient method for lifting the greater curvature and adding safety to the exploration of the cardia.

Description of VERSALIFTER-BAND
The device is a single Band with two points of fixation to the target organ and the abdominal wall, thus allowing for efficient liver retraction and easy changeable to other point of traction if needed. With conventional graspers the device can be removed and repositioned. The T-PEA LIFTER is a needle joined to a plastic stop, and can be valuable in retracting voluminous organs and avoiding inserting more trocars in bariatric surgery. The devices were designed for single use and cannot be resterilized.

3. Preliminary Results: Band-Technique was performed in all cases without using a trocar for liver retraction or conversion. Mean operation time was 119min for LSG and 144min for LRYGB. There were no postoperative complications in the 15 postoperative day period. The novel system showed feasibility and safety, allowing reduction of surgical ports in bariatric surgery.

4. Conclusions: VERSALIFTER-BAND and TPEA LIFTER for bariatric surgery seem promising in reducing ports and adding safety to laparoscopic bariatric surgery. Advantages of this method over single port and laparoscopic bariatric surgery shall be evaluated in further studies.

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