

Overview of IFSO-EC Lyon, May 2–4, 2019

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This year 2019, the “traditional” NON-INVA meeting has been merged with the IFSO-EC (European Chapter) symposium that now takes place every year. If the NON-INVA spirit was still there, the requisite of an IFSO International Symposium have been also respected.

In this regard and taking into account the proximity of the Madrid World IFSO meeting due next September, we tried to blend several items: state of the art, controversies, new technologies, while the “typical procedures” were put under scrutiny as well. More than ever, debates are thriving, and concern sleeve gastrectomy as well as modern ways of exploring the metabolic aspects of several types of gastric bypass.

What with the long-term risks of sleeve gastrectomies?

Recent data have suggested that the likelihood of long-term esophageal consequences may have been underestimated, with as much as 15% Barrett’s esophagus, potentially leading to esophageal adenocarcinoma. While some whistle-blowers say there are numerous reasons to be alarmed, others claim the nonsignificance of these data, and point out the lack of accuracy in multiple reports: there are not enough details concerning the histopathological findings (simple dysplasia, high-grade dysplasia, intestinal metaplasia) and particularly the length of Barrett, whether short or very short, or long (>3 cm). It appears that only the latter cases are really threatening in terms of cancer occurrence. A gentleman-fight took place between **David Nocca**, from France (Montpellier), a famous proponent of sleeve gastrectomy and even promotor of a procedure that could partially respond to this issue (the so-called N-Sleeve or Nissen-Sleeve), and **Gerhard Prager**, from Austria (Vienna), who raised the level of alert concerning this still highly popular operation.

The handling of sleeve gastrectomy complications, namely leaks and fistula, has also elicited a lot of comments.

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The Italian endoscopist **Gianfranco Donnatelli**, who works in Paris, France, has once again emphasized the role of pig-tail drains, whereas **Christine Stier** (Germany) was in favor of the EVAC-System, with a sponge-system (possibly allowing enteral nutrition). All insisted on the difficulty to treat chronic fistula (beyond 3–6 months) with large orifice: septotomy? EVAC? Stents (more and more criticized)? Or finally surgical rescue in case of chronic fistula, with total or subtotal gastrectomy, or sometimes fistulo-jejunostomy (**Nasser Sakran**, Israel).

More generally, endoscopic treatments have taken an important role in bariatric surgery for the past few years, but have also raised some controversies. For example: what is the treatment of choice for a gastric leak after sleeve gastrectomy? Should stents be banished? Is there any algorithm according to the clinical status? Can we really predict which one is the most effective in case of weight regain after RYGB? If one can imagine fields of competition between endoscopy and surgery (e.g., when it comes to weight regain after a bypass, or as a primary weight-loss therapy), most of the time cooperation between the two specialties is in order.

As expected, *the Omega Gastric Bypass* (better named as One-anastomosis gastric Bypass or OAGB) has drawn attention. While **Jean-Marc Chevallier** (Paris, France) detailed favorable long-term results and **Maud Robert** (Lyon, France) summarized the results of the YOMEGA trial, already published in the *Lancet*: this randomized series comparing RYGB and OAGB showed similar weight-loss in the two groups, but more comorbidity improvement with OAGB (T2DM) and more nutritional adverse effects. This can be at least partially explained by the choice of a 2-m biliary limb in the initial design of the study instead of the generally admitted 1.50 now.

New insights on malabsorption and updates on small bowel limb lengths

We kind of live in a world where the cards of malabsorption have been reshuffled. Actually they barely exist anymore,

because hormonal effects, the mixture of foregut and hindgut hypothesis and other mechanisms (biliary acids, microbiota, etc.) have taken over and contribute to a Renaissance of the metabolic surgery principles. When it comes to surgical techniques, many would become confused and also current clinical research has a hard time figuring the respective sizes of bowel lengths. For instance, the calculation of a “decent” common limb, when a two anastomosis biliopancreatic bypass or a gastric bypass is performed, has become a tricky issue. The ancient dogma of preserving a certain amount of common channel has been replaced by an account of a certain proportion. A Danish thorough study on limb length variation in super-obese patients was eloquent, and the article has just been published in *Obesity Surgery*, and has been presented by **Kamran Shah**: 671 super-obese patients were operated in a 10-year period. Patients were classified into three groups: (1) 155 patients; roux limb 150 cm, BP-limb 60 cm; (2) 230 patients; roux limb 60 cm, BP-limb 200 cm; and (3) 286 patients; roux limb 150 cm, BP-limb 200 cm. Total alimentary limb length was shortened with 60 cm in group 1 and with 200 cm in groups 2 and 3. EWL, BMI change, and TWL were higher in the 2-m BP-limb groups vs. group 1. No differences in complication rates were found, except higher frequency of marginal ulcers in patients with a shorter roux limb. EWL failure was higher in group 1 (10.3%) vs. the other groups (4.3%; 5.2%). Group 3 had significantly less weight regain (26.6%). Remission of comorbidities was higher in the 2-m BP-limb groups at the expense of nutritional and vitamin deficiencies (3.9%; 5.9%). No difference in hypoalbuminemia was noted. Lengthening of the BP-limb gives significantly higher weight loss, lower rate of EWL failure, and lesser weight regain along with better resolution of obesity-associated comorbidities.

New technologies

New ideas always pop up, but the lack of enthusiasm that we have observed these past months comes maybe from enhanced regulations, economical unbalance, and sometimes commercial mishaps. On the other end, initial results have elicited a momentum that is questioned nowadays. “Great ideas” like matching a real sleeve gastrectomy to an endoscopic plication; placing a swallowable balloon that does as good as a regular balloon without the inconvenience of upper GI-endoscopy and anesthesia; having a metabolic effect equivalent to a bypass with an endotube, etc., have encountered suspicion, difficulties, and opposition.

Gastric balloons: a strong move against the very idea of swallowing a balloon has been made by **Barham Abu Dayyeh** (USA, Mayo Clinic), mostly because the absence of upper GI endoscopy may have adverse consequences. On the other hand, typical balloons that are commercialized for

more than 30 years are not a disappointment, although with well-known limitations.

Jan Greve (The Netherlands) has detailed the reasons why we might consider a revival for the Endo-Barrier, a worthwhile technique that has been unfairly accused of many side-effects (e.g., liver abscess in the FDA study, beyond the critical threshold of 2%), whereas in most cases the type 2 diabetes is significantly improved.

The question of potential metabolic effects of endoscopic bariatric techniques (EBTs) has been asked to **Elisabeth Mathus Vliegen** (The Netherlands), who made a comprehensive and relevant lecture that reviewed the existing evidence. First, the classification she suggests will raise debate: Noninvasive Gastric EBTs such as Intra Gastric Balloon and Transpyloric Shuttle; Invasive Gastric EBTs such as the Aspire System, and Transoral Gastric Reduction (whether with sutures—APOLLO or USGI Systems, or stapling—ACE, TOGA, TERIS); Noninvasive Intestinal EBTs (ENDO-BARRIER and VALENTX); Invasive Intestinal EBTs (Duodenal Resurfacing, IMAS). In conclusion, it is Pr Vliegen’s assumption that all EBTs show metabolic effects related to weight loss, whereas a specific metabolic effect remains to be demonstrated, especially on the long-term. Gastric EBTs have shown an effect on CCK, PP, Ghrelin, and PYY (although variable with Ghrelin); ENDO-BARRIER and duodenal resurfacing may validate the foregut hypothesis, IMAS the hindgut hypothesis, but longer-term data are warranted.

The so-called ESG (Endoscopic Sleeve Gastroplasty) should take a prominent role among EBTs, at least according to its promoters. Some authors have shown that at 12 months the results of ESG could match with those of the real sleeve gastrectomy (or those of a surgical laparoscopic gastric plication) and exceed those of lap-banding. They even insisted on the lesser duration of hospital stay, the very low rate of complication, etc. Yet they barely take into account the range of BMI of these patients (usually lower on average than surgical candidates) and of course longer-term weight loss.

Duodenal resurfacing and IMAS (Incisionless Magnetic Anastomosis System) are the current challengers of metabolic surgery, but as emphasized by **Evzen Machytka** (Czech Republic), they are far from delivering expected promises! Technically demanding, relatively expensive, they still represent valuable leads.

Interestingly, atypical surgical procedures under investigation may look similar to some of these EBTs, typically the gastric surgical plication (LGCP), that was defended by **Karen Dolezavola** (Czech Republic) and that can be compared to the ESG, except for the pattern of plication. Likewise, the Gastro Clip or the Gastric Vest (barely alluded to) have similar claims.

Finally, and as an adjunction to current regular surgical procedures, the role of guided fluorescence remains to be validated.

Other lectures and state-of-the-art presentations

Outstanding updates have been presented, summarizing the best of both current clinical research and theoretical background.

Marco Bueter (Switzerland) has explained the general role of national registries as valuable benchmarks to each other. When correctly carried out, those registries provide high quality information, for instance in the SOREG registry (Sweden and Norway, **Johan Ottoson**) the number of pregnancies among bariatric patients; moreover, they elicit nationwide trials, such as the already famous trial on prevention of internal hernia avec RYGB, published in the Lancet in 2015 (4% vs. 11% occurrence of internal hernia whether or not the mesenteric defects had been closed during surgery). A remarkable presentation has been made of the pooled data obtained from the SOREG registry (14 M habitants) and the Netherlands Registry (DATO, 17.2 M habitants). 65/100,000 habitants are operated each year in the Netherlands, 55.6 in Norway, 61.4 in Sweden; there were 47,000 entries in 2015–2017. Total rate of complications was 6.5%, the rates of severe complications (Clavien-Dindo IIIb and IV) for DATO and SOREG were 2.6 and 2.4%, respectively, mortality rates 0.04 and 0.03%.

Robert Caiazzo (France, Lille) has outlined the principles of a dedicated unit for the entire Northern region of France (OSEAN network) that deals with the complicated cases needing emergency reoperation and/or intensive cares.

On an international level, **Wendy Brown** (Australia) has pointed out the multiple current levels of cooperation among national registries that have led to an IFSO-based global reg-

istry. The congress was proud to host at the same time the first meeting of this entity, a pilot committee being in charge and already very active.

Kamal Mahawar has given an overview of the limb length issue in bypass, with an historical perspective, pointing out the multiple variations that have taken place over the time.

Rachel Battelham made a review of current physiological hypothesis regulating appetite, brain response (analyzed through MRI), and gut hormones.

A most appreciated session was organized by IFSO-World and his president, **Almino Ramos** (Brazil): *Decision-making to choose the best procedure based on clinical cases discussion*. Several proponents of various procedures were to pick-up an operation in different clinical situations, One anastomosis duodenal switch (**Amador Garcia Ruiz de Gordejuela**, Spain), One anastomosis gastric bypass (**Jean-Marc Chevallier**, France), Sleeve gastrectomy (**David Nocca**, France), Roux-en-Y Gastric bypass (**Michel Suter**, Switzerland), and clinical management (**François Pattou**, France). The debate was both hot and productive according to all participants!

Finally, we would like to draw some conclusions at the end of this meeting. The “European-format” of IFSO-EC has been proven valuable and efficient, while staying friendly and casual. This is a meaningful way of combatting the current lack of sponsoring resources. Most European individual societies of bariatric surgery are quite successful, and organize meetings that attract more and more surgeons. For instance, the French National Meeting that was organized in Lille a couple of weeks after this symposium had 1100 participants (against 700 the year before), and it has been observed that the largest part of this increase was related to dedicated teams surrounding the expert centers across the country (dietitians, psychologists, support groups, patients associations, students and trainees etc.). Many reasons to stay optimistic!