Abstracts

Chirurgia (2016) 111: 186-203
No. 2, March - April

THE SEVENTH NATIONAL SYMPOSIUM OF BARIATRIC AND METABOLIC SURGERY
"Continous Progress in Metabolic Surgery"
International Federation for Surgery of Obesity (IFSO) Endorsed Scientific Event

December 5th, 2015 Ramada Park Hotel, Bucharest, Romania

Symposium Director: Cătălin Copăescu, MD, PhD
Symposium Co-Directors: Ciprian Duță, MD, PhD, Nicolae Iordache, MD, PhD,

SCIENTIFIC PROGRAM

08.30 - 08.40 **Opening Ceremony**
Cătălin Copăescu – Simposium Director
Mircea Beuran – SRC President

08.40-10.40 **Session I**
Multidisciplinary Approach of Metabolic Syndrome
Co-chairpersons: Cătălin Copăescu (Bucharest, Romania)
Ciprian Duță (Timişoara, Romania)
Nicolae Iordache (Bucharest, Romania)

08:40 - 08:50 **Interventional Therapies for Type II Diabetes. Summary of the London 2015 International Diabetes Surgery Summit and Consensus Conference (OP-001)**
Cristian Eugeniu Boru, (Bucharest, Romania)

08:50 - 09:00 **"CREDOR" - A RTC for the Efficiency of Metabolic Surgery Versus Conservative Treatment in Patients with Poor Control of T2DM (OP-002)**
Bogdan Smeu, Constantin Ionescu Tîrgoviște, Cristian Gruja, Daniela Lixandru, Gabriela Tanko, Cătălin Copăescu, (Bucharest, Romania)

09:00 - 09:10 **Routine Upper GI Endoscopy in Obese Patients Prior to Bariatric Surgery (OP-003)**
Mihaela Iordache, Cristian Balahură, Cosmina Vlăduț, Cătălin Copăescu (Bucharest, Romania)

09:10 - 09:20 **OSA and Bariatric Surgery - All a Surgeon Should Know (OP-004)**
Elena Cristina Mitrofan, Delia Bocovanu, Daniel Timofte (Iași, Romania)

09:20 - 09:30 **Bile Acids Before and Early After Sleeve Gastrectomy (OP-005)**
Adriana Florinela Cățoi Galea, Romeo Florin Galea, Aurel Mironiuc, Alina Pârvu, Ioana Pop (Cluj-Napoca, Romania)

09:30 - 09:40 **Management of Nutritional Deficiencies After LSG (OP-006)**
Oana Dumitrache, Ruxandra Pleșa, Mihaela Iordache (Bucharest, Romania)

09:40 - 09:50 **Are We There Yet? Nutritional Interventions' Insights After Gastric Sleeve (OP-007)**
Delia Reurean-Pintilei, Mihai Ganga, Eliza Simiras, Ella Pintilei, Daniel Timofte (Iași, Romania)

09:50 - 10:00 **Actual Role of US for Obesity Treatment (Conference)**
Călin Tiu (Câmpina, Romania)

10:00 - 10:10 **Intragastric Balloon: Is There Any Place Left for It in the Treatment of Obesity? (OP-008)**
Cristian Eugeniu Boru, Victor Constantinică, Mihai Mavru, Dan Ioan Ulmeanu, Ana Pușcașu (Bucharest, Romania)

10.10 - 10.30 **Interactive Discussions (All Faculty)**

10:30 - 11:00 ***Coffee Break and Exhibition Visiting***

11.00 - 13.00 **Session II**
For Better Metabolic Surgery Outcomes
Co-chairpersons: Richard Welbourn (London, UK)
Francesco Greco (Bergamo, Italy)
Cristian Eugeniu Boru (Bucharest, Romania)

11:00 - 11:20 **Bariatric Surgery Registries, Surgical Outcomes and NICE (Conference)**
Richard Welbourn (London, UK)

11:20 - 11:40 **Complications and Readmissions After Bariatric Surgery - Lessons Learned from the Scandinavian Obesity Registry (Conference)**
Mikael Wirén (Stockholm, Sweden)

11:40 - 11:55 **Perioperative Management Protocol for Obstructive Sleep Apnea in a High Volume Centre of Excellence for Bariatric and Metabolic Surgery (OP-009)**
Daniela Godoroja (Bucharest, Romania)

11:55 - 12:10 **Metabolic Surgery: DS, SADI, SIPS, DJBP-SG... Is There a Better Word?**
Mehmet Mahir Özmen (Ankara, Turkey) (Conference)

12:10 - 12:20 **Single-Step Conversion of Gastric Banding to Roux-en-Y Gastric By-Pass Is Safe and Favorable to the Patient: a Single Centre Study on 784 Patients (Conference)**
Sarah Vandenhaute, Isabelle Debergh, Bruno Dillemans (Bruges, Belgium)

12:20 - 12:30 **Active Search for Hiatal Hernia in LSG - A Surgical Protocol (OP-010)**
Ionuț Hutopilă, Bogdan Smeu, Maura Priboi, Irina Bălescu, Sorin Velici, Cătălin Copăescu (Bucharest, Romania)

12:30 - 12:40 **Is It Possible to By-Pass the Learning Curve in Bariatric Surgery? (OP-011)**
Daniel Timofte, Ionut Huțanu, Delia Reurean-Pintilei, Elena Mitrofan, Vlad Vlăsceanu, Petru Soroceanu, Lidia Ionescu,Veronica Mocanu, Mihaela Blaj (Iași, Romania)

12.40 - 13.00 **Interactive Discussions (All Faculty)**

13:00 - 14:00 ***Lunch Break and Exhibition Visiting***

14:00 - 16:00 **Session III**
Technical Challenges & Innovations in Bariatric Surgery
Co-chairpersons: Mikael Wirén (Stockholm, Sweden),
Mehmet Mahir Özmen (Ankara, Turkey),
Cosmin Ion Puia (Cluj-Napoca, Romania)

14:00 - 14:15 **From Restriction to Malabsorption: Modularity of the One Anastomosis Gastric By-Pass. Original Technique (Conference)**
Francesco Greco (Bergamo, Italy)

14:15 - 14:30 **Diverted Minigastric By-Pass - the Bridge Operation (Conference)**
Rui Ribeiro (Lisbon, Portugal)

14:30 - 14:40 **Standart Technique of LMGB (Video)**
Tevfik Tolga Şahin (Ankara, Turkey)

14:40 - 14:55 **The Importance of the Posterior Gastric Ligament Preservation in Sleeve Gastrectomy (OP-012)**
Ünal Aydin (Istanbul, Turkey)

14:55 - 15:05 **Technical Challenges for Laparoscopic Gastric Sleeve in Patients with History of Pancreatitis (OP-013)**
Simona Filip, Cătălin Copăescu (Bucharest, Romania)

15:05 - 15:20 **Original Modification to DS: SADS-p (Video)**
Mehmet Mahir Özmen (Ankara, Turkey)

15:20 - 15:30 **Leaving the Band in Place in Conversion from Gastric Band to Roux-en-Y (Conference)**
Sarah Vandenhaute, Silke Flahou, Bruno Dillemans (Bruges, Belgium)

15:30 - 15:45 **Strategies of Revision and Conversion of Ring Gastroplasty into Other Bariatric Procedures (OP-014)**
Romeo Florin Galea, Adriana Florinela Cățoi Galea, Aurel Mironiuc, Ștefan Chiorescu, Ovidiu Grad, Emil Pop, Doru Mircioiu (Cluj-Napoca, Romania)

15.45 - 16.00 **Interactive Discussions (All Faculty)**

16:00 - 16:30 ***Coffee Break and Exhibition Visiting***

16:30 - 17:30 **Session IV**
Prevention and Management of Complications
Co-chairpersons: Rui Ribeiro (Lisbon, Portugal)
Sorin Olariu (Timișoara, Romania)

16:30 - 16:40 **Internal Hernia After Laparoscopic Roux-en-Y Gastric By-Pass: a Correlation Between Radiological and Operative Findings (Conference)**
Sarah Vandenhaute, Francis Goudsmedt, Bruno Dillemans (Bruges, Belgium)

16:40 - 16:50 **Unexpected Evolution of Conservative Treated LSG Leak (video) (OP-015)**
Sorin Velici, Cătălin Copăescu (Bucharest, Romania)

16:50 - 17:00 **Chyloperitoneum Following Laparoscopic Gastric Sleeve and Hiatal Hernia Repair - Diagnostic and Management (OP-016)**
Irina Bălescu, Cătălin Copăescu (Bucharest, Romania)

17:00 - 17:10 **Recurrent Hiatal Hernia Repair After Sleeve Gastrectomy (OP-017)**
Daniela Cristina Barjica, Caius Lazăr, Amadeus Dobrescu, Gabriel Verdeș, Ciprian Duță (Timișoara, Romania)

17:10 - 17:20 **Accidental Twist of the Intestinal Loops in a OAGB - Technical Solutions (OP-018)**
Bogdan Smeu, Maura Priboi, Cătălin Copăescu (Bucharest, Romania)

17:20 - 17:30 **Discussions on the Operative Video Analysis in a Complicated Evolution of LSG (video)**
Victor Diaconu, Florin Turcu (Bucharest, Romania)

17:30 - 17:40 ***Coffee Break and Exhibition Visiting***

17:40 - 18:30 **Session V**
Metabolic Surgery Programs - Results
Co-chairpersons: Cătălin Copăescu (Bucharest, Romania)
Ciprian Duță (Timișoara, Romania)

17:40 - 17:50 **Results of Sleeve Gastrectomy in Adolescent Obese Patients (OP-019)**
Caius Lazăr, Daniela Cristina Barjica, Amadeus Dobrescu, Ciprian Duță (Timișoara, Romania)

17:50 - 18:00 **Metabolic Changes After Gastric Plication (OP-020)**
Amadeus Dobrescu, Daniela Cristina Barjica, Caius Lazăr, Gabriel Verdeș, Laurian Felix Stoica, Ciprian Duță (Timișoara, Romania)

18:00 - 18:10 **Four Years of Bariatric Surgery in "St. Constantin" Hospital Braşov (OP-021)**
Bogdan Moldovan, Dumitru Pocreață, Luminița Cîmpeanu, Andreea Moldovan (Brașov, Romania)

18:10 - 18:20 **Three and a Half Years of Bariatric Surgery at the „St. Spiridon" Hospital - Experience of the Anaesthetic Team (OP-022)**
Daniel Timofte, Serghei Pădureanu, Alina Gavriluț, Mihaela Damian, Marta Chiricuță, Andreea Lupușoru, Adrian Ciumanghel, Mihaela Blaj (Iași, Romania)

18:20 - 18:30 **Bariatric Surgery: First Year of Practice for a New Centre (OP-023)**
Șerban Vasile, Mircea Lică, Diana Toma, Paula Neicuțescu, Rely Manolescu (Bucharest, Romania)

18:30 **Final Remarks. Closing Ceremony**

e-Posters Session

Bariatric Surgery Complications - Laparoscopic Management (P-001)
Daniel Timofte, Lidia Ionescu, Ionut Huțanu, Mihaela Blaj (Iași, Romania)

Does Bariatric Surgery Modify the Lipidic Metabolism? (P-002)
Daniel Timofte, Ioana Hristov, Lidia Ionescu, Veronica Mocanu (Iași, Romania)

NOTES - Gastrojejunostomy versus Endoscopic Ultrasound (EUS) - Guided Gastrojejunostomy in Managing Obesity a Feasibility Study on Pigs (P-003)
Adrian Săftoiu, Valeriu Șurlin, Bogdan Silviu Ungureanu, Sandu Ramboiu, Ștefan Pătrașcu, Nicoleta Alice Drăgoescu, Elena Daniela Burtea, Florina Nechita, Eugen Georgescu, Lucian Gruionu, Carmen Daniela Nicolau, Peter Vilmann, Florin Turcu, Cătălin Copăescu

Metabolic Profile in Obese Patients: the Bariatric Surgery Impact (P-004)
Daniel Timofte, Ioana Hristov, Veronica Mocanu (Iași, Romania)

Challenges and Pitfalls of Laparoscopic Sleeve Gastrectomy and Hiatal Hernia Repair in Situs Inversus Totalis (P-005)
Maura Priboi, Cătălin Copăescu (Bucharest, Romania)

ORAL PRESENTATIONS (OP)

OP-001

INTERVENTIONAL THERAPIES FOR TYPE II DIABETES. SUMMARY OF THE LONDON 2015 INTERNATIONAL DIABETES SURGERY SUMMIT AND CONSENSUS CONFERENCE

C. E. Boru

„Sfanta Maria" Clinic Hospital, Bucharest, România

Metabolic or bariatric surgery may be more effective than standard medical treatments for the long-term control of type 2 diabetes in obese patients, according to recently published studies. Various studies have shown that bariatric surgery can result in dramatic improvement of type-2 diabetes in obese patients, usually on short-term follow-up. Recent studies, from which one randomized controlled trial, have shown same promising results on long-term control of type 2 diabetes. New research suggests that obese patients with type 2 diabetes, especially those with recent disease onset, should be prioritized for obesity surgery over those without type 2 diabetes, including considering overall costs of healthcare. Even if some patients see a reversal of diabetes after surgery, they need fewer expensive diabetes medications or treatment for complications in the future. Diabetes organizations recently developed guidelines that integrate medical and surgical therapies in a rational treatment algorithm for T2DM. Specific goals include providing guidance for the selection of surgical candidates and for the use of diabetes-specific measures in the preoperative work-up and follow-up of patients. An extensive review of the recent literature is analysed and presented.

OP-002

"CREDOR" - A RTC FOR THE EFFICIENCY OF METABOLIC SURGERY VERSUS CONSERVATIVE TREATMENT IN PATIENTS WITH POOR CONTROL OF T2DM

Bogdan Smeu[1], Constantin Ionescu Tîrgoviște[2], Cristian Gruja[2], Gabriela Tanko[3], Daniela Lixandru[4], Cătălin Copăescu[1]

[1]*Ponderas Hospital – Center of Excellence in Bariatric and Metabolic Surgery - Bucharest, Romania*
[2]*"Prof. N. Paulescu" National Institute for Diabetes, Nutrition and Metabolic Diseases - Bucharest, Romania*
[3]*"Nicolae Simionescu" Institute for Biology and Cellular Pathology - Bucharest, Romania*
[4]*"Carol Davila" University of Medicine and Pharmacy - Bucharest, Romania*

Background: Nowadays, the obesity prevalence is still growing worldwide and the metabolic syndrome is more likely to develop at younger ages, increasing dramatically the financial burden on healthcare systems. The T2DM remission after metabolic surgery opens new pathways for basic research for a better understanding its pathogenesis and provides a hope for reducing the long term medical expenses for these patients.
Objectives: developing a selection protocol for T2DM patients with obesity eligible for metabolic surgery (laparoscopic sleeve gastrectomy), after comparing the treatment efficacy with the current standard treatment of T2DM (diet, exercise, oral drug therapy, insulin therapy) as indicated by up to date clinical guides.
Methods: CREDOR is a prospective randomized trial control with 40 patients in two groups. The surgical group will undergo laparoscopic sleeve gastrectomy in a Center of Excellence in Bariatric and Metabolic Surgery (Ponderas Hospital) by one surgical team and the conservative group will be treated by one medical team from "Prof. N. Paulescu" National Institute for Diabetes, Nutrition and Metabolic Diseases, according to up to date clinical guides for diabetes mellitus. The outcomes will be then studied and a selection protocol for T2DM patients with obesity eligible for metabolic surgery will be proposed. This study has an important secondary objective, trying to investigate the complex relationship between gut hormones, pancreatic beta-cells and the secretory function of adipocytes in T2DM patients with obesity.
Results: Our study is undergoing, all 40 patients were submitted to one of the protocols, 20 undergoing laparoscopic sleeve gastrectomy and 20 started the conservative medical treatment. The one year follow-up will be completed in December 2016.
Conclusions: although the study group is not very large, by designing a prospective and randomized trial control, we hope to identify significant data that will be relevant for further implementation of metabolic surgery in the national program for T2DM in Romania

---

OP-003

ROUTINE UPPER GI ENDOSCOPY IN OBESE PATIENTS PRIOR TO BARIATRIC SURGERY

Mihaela Iordache, Cristian Balahură, Cosmina Vlăduț, Cătălin Copăescu

Ponderas Hospital – Center of Excellence in Bariatric and Metabolic Surgery - Bucharest, Romania

Background: Obesity is an important risk factor for gastrointestinal diseases. However, the role of endoscopy in the evaluation of bariatric patients remains controversial. The purpose of this paper was to identify the most commonly gastrointestinal abnormalities in patients undergoing bariatric surgery.
Methods: We retrospectively analized the medical records of the patients who underwent bariatric surgery in our clinic in 2014 and were prior evaluated using upper gastrointestinal endoscopy (UGE) with biopsies for the detection of Helicobacter pylori (HP). The patients who were reluctant to the endoscopic biopsy or those that had a relative contraindication for biopsiy were tested for the H pylori infection using the serologic anti- H Pylori antibody detection. Gastric biopsies were performed in elective patients according to the endoscopic abnormalities.
Results: During the 12 month study period, 535 patients (371 females and 164 males) were evaluated prior to bariatric surgery. The mean age was 41 years, and the median value of the body mass index (BMI) was 41.13 kg/m^2.One or more pathologic endoscopic lesions were identified in 81.49% of patients.The most common findings were gastritis (62.8%), esophagitis (27.1%), hiatal hernia (17.57%), duodenitis (15.51%), gastric ulcers (2.8%), duodenal ulcers (3.5%), gastric polyps (2.8%), and one case of gastric cancer (0.18%). The prevalence of HP infection was 43.55% (n= 233).Gastric biopsies were performed in 36 patients. In 92 patients (17.19%) abnormal endoscopic findings were found that postponed surgery, in 27 patients (5.04%) severe ulcerations had to be treated prior to surgery, and in one patient (0.18%), gastric cancer led to changement in surgical approach.
Conclusions: The results of our study have shown that the gastrointestinal pathology observed in obese patients can be very large. In our study pathologic findings led to a change in medical treatment in a significant number of patients (17%), but a change in surgical technique in relatively few (< 1%).
Although this issue remains highly controversial, these data suggest that UGE with routine biopsies for HP detection should be done in all patients prior to bariatric surgery.

OP-004

OSA AND BARIATRIC SURGERY - ALL A SURGEON SHOULD KNOW?

Elena Cristina Mitrofan, Delia Bocovanu, Daniel Timofte

Gr. T. Popa", University of Medicine and Pharmacy, „St. Spiridon" Hospital, Iași, România

Objectives: Obstructive Sleep Apnea (OSA) is more prevalent in obese population. Bariatric surgery (BS) is an effective method to reduce and maintain weight loss, an important step in OSA therapy. The aim of this presentation is to assist practitioners to deliver effective and save medical care.
Material and methods: All the obese patients are investigated for OSA. BS is recommended for obese OSA with BMI > 35kg/m^2, with pre-operatory treatment of 6-8 weeks with CPAP and follow up after BS. Post-surgical reevaluation should be at 1, 3, 6 months and 1 year.
Results: In a recent meta-analysis of 13.900 patients who underwent BS, 79% of them had either resolution or improvement of OSA. In a prospective, multicentre observational study of patient undergoing BS, complications occurred in 4,1% this included 0,3% mortality. Patients more likely cured of OSA were less morbidly obese and younger. Patients should repeat polysomnograms after BS and those patients with residual OSA, must be treated with CPAP. The metabolic improvements that accompany weight loss (by BS and dietary means) may be maximized if OSA is also treated by CPAP.
Conclusions: Ongoing diet and behavioral programmes are necessary to maintain initial dramatic weight loss achieved by BS. No clear guidelines exist upon which to base the recommendations for retesting for OSA following BS. Patients after BS with regain of weight, a history of previous OSA, must be retesting for OSA.

OP-005

BILE ACIDS BEFORE AND EARLY AFTER SLEEVE GASTRECTOMY

Adriana Florinela Cătoi Galea[1], Romeo Florin Galea[2], Aurel Mironiuc[2], Alina Pârvu[1], Ioana Pop[3]

Physiology Department[1], Second Surgical Clinic[2] "Iuliu Haţieganu" University of Medicine and Pharmacy Cluj-Napoca, Romania.University of Agricultural Sciences and Veterinary Medicine Cluj-Napoca[3]

Background: Bile acids (BA) are key regulators of systemic metabolism, hold important and direct roles in nutrient absorption and serve as signaling molecules. In case of obese patients submitted to bariatric surgery besides several weight-independent mechanisms of diabetes remission, such as exclusion of the anti-incretin factor(s), increased postprandial secretion of GLP-1, changes in intestinal nutrient-sensing mechanisms that affect insulin sensitivity and impaired ghrelin secretion, BA alterations seem to play an important role. The aim of the study was to test the hypothesis that circulating BA change rapidly in morbidly obese (MO) patients submitted to sleeve gastrectomy (SG) and that this change might be associated with modifications of insulin resistance.
Material and Method: We investigated two groups of subjects. The first one consisted in 24 MO patients (9 male and 15 female) submitted to SG in the Second Surgical Clinic of Cluj-Napoca. We evaluated the values of serum BA, fasting blood glucose, insulin and HOMA-IR before and at 7 and 30 days after the intervention. The second group was formed out of 10 healthy subjects.
Results: We observed that the estimated mean values of fasting insulin and HOMA-IR were higher in MO patients as compared to normal weight controls. Also, we found significant differences between MO and controls regarding BA and we noticed that the estimated mean value was decreased in patients versus controls. The analysis of insulin and HOMA-IR changes in the MO as compared to the baseline moment revealed a reduction of the values by the 7th day (Sum of negative versus positive Ranks values: 74 versus 31 for insulin and 60 versus 31 for HOMA-IR) and by the 30th day after surgery (Sum of Ranks values: 98 versus 55 for insulin and 86 versus 34 for HOMA-IR). Regarding BA values, we found no statistical change at 7 days [Wilcoxon test, statistics Z=0.17, p=0.938] and at 30 days [Wilcoxon test, statistics Z=1.12, p=0.289] after surgery. For analyzed cases, we obtained an estimated mean increase of BA values by the first time point (Sum of negative versus positive Ranks values:13 versus 15) and by the second time point (Sum of negative versus positive Ranks values:10 versus 26).
Conclusions: We observed a trend of insulin resistance reduction and insulin decrease early after SG. Also, an early increase of BA after SG was trending.

OP-006

MANAGEMENT OF NUTRITIONAL DEFICIENCIES AFTER LSG

Oana Dumitrache, Ruxandra Plesea, Mihaela Iordache

Ponderas Hospital – Center of Excellence in Bariatric and Metabolic Surgery – Bucharest, Romania

Introduction: Nutritional deficiencies are common after bariatric surgery. The etiology is multifactorial owing to impaired absorption and decreased oral intake.
Objectives: The aim of the study was to clarify the prevalence of deficiencies after gastric sleeve resections in morbildly obese patients and to identify their therapeutic management in the long term
Methods: one year to four years post operative data were collected prospectively. We included obesity related co-morbidities and blood test findings.
Results: 178 patienmts are included into the present study.This paper presents the results in med (54). All 54 male patients have completed four years follow-up. Deficiencies of iron, after 1 year of surgery-7.4%, 2 years after surgery-7.4%, 3 years- 0% and four yers after surgery -3.7% respectively. Deficiencies of vitamin B12, after 1 year of surgery-9.25%, 2 years after surgery-9.25%, 3 years-11.1% and four years after surgery -5.5% respectively. The most frequent deficiency.Deficiencies of seric albumin, after 1 year of surgery-7.4%, 2 years after surgery-0%, 3 years- 1.85 % and four yers after surgery -0 % respectively. Deficiencies of transferin, after 1 year of surgery-5.5 %, 2 years after surgery-11.1%, 3 years- 3.7% and four yers after surgery -3.7% respectively. The second most freaquent deficiency.Deficiencies of vitamin D , after 1 year of surgery-0 %, 2 years after surgery-0 %, 3 years-1.85 % and four yers after surgery -0 % respectively.
Conclusion: LSG had a minor effect on nutritional deficiencies one to four years post surgery. We believe that focusing on the preoperative nutritional status and tailoring a specific supplemental program for each individual will prevent postoperative deficiencies.

OP-007

ARE WE THERE YET? - NUTRITIONAL INTERVENTIONS' INSIGHTS AFTER GASTRIC SLEEVE

Delia Reurean-Pintilei, Mihai Ganga, Eliza Simiras, Ella Pintilei, Daniel Timofte

„Gr. T. Popa", University of Medicine and Pharmacy, „St. Spiridon" Hospital, Iași, România

Background and aim: Bariatric procedures are curently regarded as the most effective treatment for severe obesity. However, after surgery, the overall longterm patients' wellbeing depends on daily adequate macro- and micronutrient supply. Patients' understanding and applying dietary recommendations has been shown to be challenging. Our papers' aim is to discuss a series of particular cases regarding nutritional management after gastric sleeve.
Material and method: we had chosen three particular types of patients who have undergone LSG. Patient 1: woman with ovo-lacto-vegetarian diet, having vitamin B12 and mild serum albumin deficiency. Patient 2: 18 year old young woman, having transient emotional outbursts, low self-esteem and mild difficulties in relating. Patient 3: 43 year old woman, experiencing significantly impaired joint mobility from gonarthrosis, with a firm weight loss indication before arthroplasty.
Results: Patient 1: alternative protein sources and supplemented B12 vitamin had to be added to in patients' diet, with respect to her personal choices; patient 2: in addition to regular nutritional advice, augmented attention regarding psychological approach has been offered; patient 3: considering limited physical activity, an adapted low calorie diet has been prescribed. Having performed these interventions a desired outcome was observed in all these three patients.
Conclusions: Further efforts should focus on support tools enabling a unified, nevertheless tailored strategy for the bariatric patient. These cases confirm that collaborative approach is of paramount importance in obtaining the desired results along with maintaining maximal safety conditions.

OP-008

INTRAGASTRIC BALLOON: IS THERE ANY PLACE LEFT FOR IT IN THE TREATMENT OF OBESITY?

C. E. Boru[1], V. Constantinică, M. Mavru, D.I. Ulmeanu[2], A. Pușcașu

[1]*„Sfanta Maria" Clinical Hospital, Bucharest, România*
[2]*"Malaxa" Hospital, Bucharest, Romania*
[3]*„Regina Maria" Băneasa Hospital, Bucharest, România*

Intragastric balloon (IGB) is used in the treatment of obesity for more than 20 years, both as a self-standing procedure and as a bridge treatment to bariatric surgery. The indications and results are well known, due to its characteristics as a non-surgical, endoscopic, minimally invasive and temporary treatment. Recently new models of IGB appeared on the market, and FDA approved for the first time in 2015 two models as treatment of obesity in the United States. Spatz™ Adjustable Balloon System is the first adjustable IGB, tolerated for 12 months, available from 2005. Between 2013-2015 thirty overweighted/obese patients were treated with Spatz3™, maintained in place for approximately 12 months, with a minimum follow-up of 6 months. The results, complications and efficacy of the Spatz3™ balloon are presented, together with an extended review of the literature. IGB represents a useful tool in the treatment of obesity, when patient's selection is careful done.

OP-009

PERIOPERATIVE MANAGEMENT PROTOCOL FOR OBSTRUCTIVE SLEEP APNEA IN A HIGH VOLUME CENTRE OF EXCELLENCE FOR BARIATRIC AND METABOLIC SURGERY

Daniela Godoroja

Ponderas Hospital – Center of Excellence in Bariatric and Metabolic Surgery – Bucharest, Romania

Introduction: In morbidly obese patients with OSA undergoing surgery the likelihood of respiratory complications, including atelectasis, pneumonia, hypoxia, occurring after surgery is increased. As the number of patients undergoing weight loss surgery

increases, more patients will be at risk for these potentially life-threatening postoperative pulmonary events. Preoperative CPAP reduces the negative cardiopulmonary physiological consequences and the possible complications.The aim of this study was to develop a reliable protocol for the management of significant OSA in bariatric patients.

Methods: 1357 consecutive patients who were scheduled for laparoscopic bariatric surgery in our center, between January 2013 –December 2015 were prospectively included into the present study. Prior to surgery, body mass index (BMI), gender, neck circumference, STOP-Bang score, SpO2, neck and trunk fat (by dual X-ray absorptiometry) were recorded; basic anthropometric measurements of the patients were obtained, and the A Body Shape Index (ABSI) calculated using the Krakauer formula. Predictors of OSA were identified and their cut-off values determined All patients with a STOP-Bang score ≥ 5 underwent polysomnography. The patients with moderate severe OSA defined as an Apnoea / Hypopnoea Index (AHI) of 20 or greater received treatment with Auto-titrated Positive Airway Pressure (APAP) therapy 2-4 weeks preoperatively. Before scheduled day of surgery we evaluated the patients compliance with CPAP. The data monitoring system recorded mean daily use (h), percentage of days on which CPAP was used, percentage of days on which PAP was used for >4 hr and AHI. The adequate compliance was considered as PAP usage of >4 hr per night for 70% of days.

Results: In total, 1357 patients were screened; 345 patients underwent preoperative polysomnography; 190 had AHI ≥ 20/h and received APAP treatment. The novel Dual-X Ray–Obstructive Sleep Apnoea (DX-OSA)) score for accurate prediction of significant OSA were derived from the data. Its sensitivity, specificity, positive-predictive values, negative-predictive values, likelihood ratios, and post-test probabilities determined. At a cut-off of 3, the score had the same sensitivity as the STOP-bang score, but better specificity. The lowest likelihood ratio was found for STOP-Bang and the highest for the DX-OSA score (OSA probability > 83%). 129 patients was considered compliant with CPAP.For normally distributed data the results were presented as means and standard deviation and with non-normally distributed data, the results were reported as medians and interquartile ranges. We tested for normality using the Shapiro-Wilk test. (*Table 1*)

Table 1. *Descriptive statistics*

Variable	Median	25%-75% percentile	IQR
Age	42	34.0-49.0	15.0
BMI	40.9	36.3-46.0	8.8
Height	170	164-177	14
Waist Circumference (cm)	125	113-138	23
Hip Circumference (cm)	127	119-137	18
Neck Circumference (cm)	42	39-47	8
SpO2 baseline	.97	0.96-0.98	0.02
Lean Weight (kg)	54.9	47.36-67.40	19.70
Fat Mass (kg)	56.4	46.6-67.2	20.0
Trunk Fat (kg)	32.3	25.7-40.5	13.5
Neck Fat (g)	1212.5	923.0-1579.7	676.5
Lean Neck (kg)	2.1	1.8-2.6	0.96
Expiratory reserve volume (%)	40.7	24.0-63.0	39.7
ABSI	0.084	0.079-0.088	0.006
Waist-Hip ratio	0.97	0.90-1.05	0.15

ABSI = A body shape index; BMI = body mass index; IQR = interquartile range;

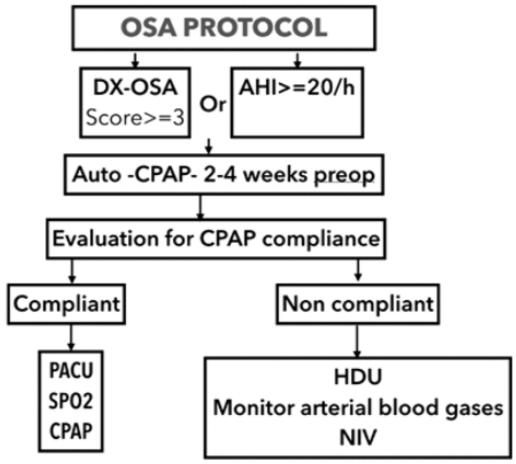

Figure 1.

The statistical analysis was performed with SPSS version 22. For all the patients we used an OSA safe anaesthesia technique and all the non compliant patients with CPAP were admited postoperatively in HDU for 24 hours with serial monitoring of blood gases and noninvasive ventilation.The compliant patient continued their CPAP postoperatively with monitoring of SpO2 for 24 h. (*Fig. 1*)

Conclusions: Positive airway pressure is the most effective treatment for obese patients with moderate-to-severe OSA undergoing surgery Because compliance with CPAP treatment is suboptimal an adequate postoperative care may significantly reduce the potential cardio-respiratory complications.

OP-010

ACTIVE SEARCH FOR HIATAL HERNIA IN LSG - A SURGICAL PROTOCOL

Ionuț Hutopilă, Bogdan Smeu, Maura Priboi, Irina Bălescu, Sorin Velici, Cătălin Copăescu

Ponderas Hospital – Center of Excellence in Bariatric and Metabolic Surgery – Bucharest, Romania

Background: The prevalence of gastro-esophageal reflux disease (GERD) and hiatal hernia (HH) is significantly higher in

morbidly obese patients. Up to 40% of morbidly obese patients have hiatal hernia. In the literature some studies demonstrated that after gastric sleeve alone, de novo GERD occurs in 22,9% of patients, but after gastric sleeve and hiatal hernia repair the postoperative GERD is significantly reduced. Moreover, despite a careful preoperative work-up, HH is still underdiagnosed in the obese patients proposed for a bariatric procedure.
Aim: The aim of this study is to demonstrate the importance of intraoperative active dissection and identification of a potential undiagnosed hiatal hernia in the obese patients proposed for laparoscopic sleeve gastrectomy (LSG) .
Method: From a prospectively maintained database of Ponderas Hospital - Center of excellence in Bariatric and metabolic surgery we studied 2247 patients who underwent laparoscopic sleeve gastrectomy in a period of 3 years, beginning with January 2013 until December 2015.We present the cases with patients who underwent laparoscopic gastric sleeve and concomitant hiatal hernia repair. From all patients , 696 (31%) were diagnosed preoperatively with hiatala hernia and 534 (24 %) were diagnosed intraoperatively with hiatal hernia. A total of 1230 (54%) benefited of concomitant hiatal hernia repair.
Results: Time of surgery is higher for laparoscopic sleeve gastrectomy (LSG) and simultaneous hiatal hernia (HH) repair comparing with simple laparoscopic sleeve gastrectomy. We did not have important intraoperative accidents. Follow-up of the patients was from 3 months to 36 months. After LSG with HH repair, 73 patients were diagnosed with gastroesophageal reflux disease (5,9 %). Dysphagia for solids was present at 1 month in 85 patients (7%), but ameliorated at 3 months and resolution at 6 months except 4 patients. We had 9 recurrences (0,71 %) and 4 cases of stenosis (0,32%).
Conclusion: Hiatal hernia can be missed preoperative, therefore active identification of a potential hiatal hernia is appropriate, crural closure in addition to gastric sleeve in this obese patients provide good outcomes in terms of GERD symptoms control, weight loss and therefore should be included as a surgical protocol.

OP-011

IT IS POSSIBLE TO BY-PASS THE LEARNING CURVE IN BARIATRIC SURGERY?

D. Timofte, I. Huțanu, Delia Reurean-Pintilei, Elena Mitrofan, V. Vlăsceanu, P. Soroceanu, Lidia Ionescu, Veronica Mocanu, Mihaela Blaj

„St. Spiridon" Hospital, Iași, România

Objectives: The Learning Curve (LC) represents a concept which refers to the acquisition of a new technique in any domain supposing to guide training and implementation at institutions not currently using the new procedure, in bariatric surgery being a complex process starting with selection of cases, perioperatively management and treatment of complications.
Materials and methods: There were included 120 patients operated in the 3rd Surgical Unit between June 2012 and December 2015 divided in 3 groups of 40 patients.The main parameters were analyzed.
Results: Univariate analysis revealed a significant decrease of the operative time in the 3rd lot (70 +/- 20 minutes) comparing with lot 1 (90 +/- 15 minutes) and a significant decrease of incidents and complications following the learning curve: lot 1 - 13,33% (4 /30), lot 2 - 3,33% (1/30) and lot 3 with 0 complications.
Conclusions: The results can be biased by retrospective design of the study with the lack of follow up for all the patients. On our cohort (120) the estimation of the breaking point for fulfilling the LC is to be after 80 patients in accordance with literature data. One of the most important methods to shorten the LC is to initiate and maintain a mentored communication with an experienced bariatric surgeon from a specialized centre to proper recognize and manage the incidents and complications. The concept "once seen, once done, once teach" is not available in surgery, the LC in bariatric surgery being reported to be 100 cases.

O-012

THE IMPORTANCE OF THE POSTERIOR GASTRIC LIGAMENT PRESERVATION IN SLEEVE GASTRECTOMY

Ünal Aydin

Istanbul Florence Nightingale Hospital, Istanbul, Turkey

Purpose: The aim of this study was to demonstrate a lurking ligament and its various formation types and to mention the importance of this ligament in Laparoscopic sleeve gastrectomy

Methods: One hundred and twelve patients had laparoscopic sleeve gastrectomy (LSG) procedure in our clinic between March 2012 and September 2014. All procedures were performed with a standard operative technique. Only difference for the last 50 patients was to avoid the excessive dissection of posterior gastric wall. The existence of posterior gastric ligament was recorded and different types of posterior gastric ligament was demonstrated.
Results: Posterior gastric ligament was observed in all of the cases in different formation types. Three types of ligament; complete, partial and skippy, was demonstrated. 53(%47,3) of the patients had skippy, while 41 (%36,6) had partial and 18 (%16,1) had complete type of posterior gastric ligament.
Conclusion: A ligament named as 'posterior gastric ligament' and its various forms were defined in the third dimensional plane of stomach. Posterior gastric ligament remains as the only structure in LSG for preventing the mobility and ability of the stomach to rotate. The excessive dissection of the posterior gastric ligament should be avoided to prevent complications such as kinking and volvulus.

OP-013

TECHNICAL CHALLENGES FOR LAPAROSCOPIC GASTRIC SLEEVE IN PATIENTS WITH HISTORY OF PANCREATITIS

Simona Filip, Cătălin Copăescu

Ponderas Hospital – Center of Excellence in Bariatric and Metabolic Surgery – Bucharest, Romania

Introduction: Any surgical procedure can be challenging in case of obese patients with history of open surgery or various abdominal severe diseases. In obese patients with history of severe pancreatitis proposed for a bariatric procedure we assume intense abdominal adhesions especially at the level of the posterior gastric wall. Aim: to underline the particular technical difficulties of adhesiolysis in the obese patients with history of severe pancreatitis proposed for laparoscopic gastric sleeve and the importance of a proper dissection of the posterior gastric wall in order to obtain a narrow gastric tube.
Method: We present a case of obese woman with history of severe infected pancreatitis with four surgical open procedures and subsequent large ventral hernia, that referred to our hospital for a bariatric procedure and hernia repair.
Discussion: Difficulties and particularities of adhesiolysis, the decision for a staged approach are discussed and literature references are made.
Conclusion: An experienced surgical team in laparoscopic and metabolic surgery for this difficult cases is recommended and, if possible, staged approach is preferred, first step the bariatric procedure and delayed Ventral Hernia Repair.

OP-014

STRATEGIES OF REVISION AND CONVERSION OF RING GASTROPLASTY INTO OTHER BARIATRIC PROCEDURES

Romeo Florin Galea[1], Adriana Florinela Cătoi Galea[2], Aurel Mironiuc[1], Ştefan Chiorescu[1], Ovidiu Grad[1], Emil Pop[1], Doru Mircioiu[1]

Second Surgical Clinic[1], Physiology Department[2]
"Iuliu Haţieganu" University of Medicine and Pharmacy Cluj-Napoca, Romania

Background: Silastic ring vertical gastroplasty (SRVG) has been used in the Second Surgical Clinic form Cluj-Napoca since 1997. However, because of several complications it has been abandoned and replaced by laparoscopic sleeve gastrectomy (LSG) and Roux en Y gastric bypass (RYGB) since 2013. Still, for the cases of ring failure we had to find the best strategies for revision and conversion into other bariatric procedures.
Material and Method: During 1997-2013 we performed 1366 operations out of which 1111 were SRVG, 93 were reconstructions and 162 were cosmetic interventions. Rings have a short life duration and are often complicated with stenosis and enlargements, so we initiated conversions into LSG and RYGB. The conversion strategy depends on the ring position and on the integrity of the vertical suture.
Results: There were 93 rings removed before 2013 and 18 after 2013. Rings were removed between 1 and 10 years after SRVG. We report cases of ring removal by the 1st, 5th, 6th and 9th year after SRVG as well as conversions into SG by the 2nd year, SG and RYGB by the 3rd year, and RYGB by the 4th and by the 10th year.

Conclusions: SRVG has had its successful period. The ring tolerance is limited between 5 and 10 years and reconstruction as well. Simultaneously ring removal and conversion has its risks and therefore timing is essential (conversion after 4-6 months).

OP-015

UNEXPECTED EVOLUTION OF A CONSERVATIVE TREATED LSG LEAK (VIDEO)

Sorin Velici, Cătălin Copăescu

Ponderas Hospital – Center of Excellence in Bariatric and Metabolic Surgery – Bucharest, Romania

Background: Laparoscopic sleeve gastrectomy has become a very popular technique, being very well standardized and with a very low rate of complication. However the worst complication, even if it occurs in only 0.5-1% of the cases, is the stapled line leak. The approach for this complication depends on the several factors: time of the appearance after surgery, location on the stapling line and its severity.
Aim. Methods: We present the case of a 27 years old female, who underwent LSG a year before. She developed an early leak, which was treated conservatively for 2 weeks. Routine follow-ups showed favorable evolution, with no sign of leak or abscess. However, the patient was admitted, a year after, with 2 days history of back pain (posterior left hemi-thorax), fever and chills. Investigations (CT, Upper GI endoscopy) identifies a 2mm leak located just underneath the GE junction with a para-gastric abscess with small air-fluid level.
Results: We decided that the optimal approach for this case was immediate laparoscopic surgical intervention with washout drainage and suture. Intraoperative the abscess was drained and the orifice of the leak was identify and a upper GI endoscopy was performed per-operative not necessary to identify the leak orifice but to make sure there was no intermediate cavity left undrained. The leak was closed with a "X" suture to speed up the healing process. A naso-jejunal feeding tube was inserted. The laparoscopy was finished by placing 2 drainage tubes (the left cavity of the drained abscess and one left para-gastric). The leak was treated successfully in 6 weeks.
Conclusions: The worst complications than can occur after LSG is the leak of the stapled line. Leaks most often occurs early after surgery and if they are conservative treated. However, they can lead to unexpected evolutions that requires more aggressive approach.

OP-016

CHYLOPERITONEUM FOLLOWING LAPAROSCOPIC GASTRIC SLEEVE AND HIATAL HERNIA REPAIR - DIAGNOSTIC AND MANAGEMENT

Irina Bălescu, Cătălin Copăescu

Ponderas Hospital – Center of Excellence in Bariatric and Metabolic Surgery – Bucharest, Romania

Postoperative chyloperitoneum after bariatric surgery is an extremely rare complication, only few cases being described so far. The main mechanisms of formation consist of an intraoperative lesion of an aberrant lymphatic duct or a chronic obstruction of a lymphatic channel. When it comes to the most appropriate therapeutic approach, a conservative treatment (total parenteral nutrition in association with administration of gastro-pancreatic secretion inhibitors) might be taken in consideration. However, most of the cases will continue to evolve even if a pharmacological treatment is initiated. In these cases surgery might be needed.
Aim: We present the case of a morbidly obese patient who was initially submitted to bariatric surgery (sleeve gastrectomy) with concurrent hiatal hernia repair who developed an early postoperative chyloperitoneum.
Method: Although a conservative treatment was initiated there was no significant improvement of the clinical status of the patient so he was re-operated. Intraoperatively a lesion of an aberrant retro-esophageal lymphatic channel was observed and was successfully sutured. The suture was sealed by placing biological fibrin glue.
Results: The postoperative course was uneventful, the patient being discharged in the third postoperative day. The control abdominal ultrasound performed at one month follow up revealed the absence of any free peritoneal fluid.
Conclusion: The inovative technique to control theoostoperative chyloperitoneum after LSG and HH repair has demonstrated its efficiency being recommended for similar situation.

OP-017

RECURRENT HIATAL HERNIA REPAIR AFTER SLEEVE GASTRECTOMY

Daniela Cristina Barjica, Caius Lazăr, Amadeus Dobrescu, Gabriel Verdeș, Ciprian Duță

2nd Surgical Department, County Clinical Emergency Hospital "Pius Brînzeu", Timișoara

Introduction: The presence of hiatal hernia in patients with a history of laparoscopic sleeve gastrectomy (LSG) is a controversial topic. We report the case of a patient diagnosed with sliding hiatal hernia after LSG.
Material and method: A 51 years old woman accusing heartburn for about three months, underwent ambulatory barium passage exam and gastroscopy. The exams showed a sliding hiatal hernia, GERD and reflux esophagitis. The patient is known with an extensive medical history. Of interest to our case report is the LSG performed in our clinic three years before. From the patients history we have learned that the weight loss was linear over the three years,from an initial BMI of 39kg/m^2 to a BMI of 26 kg/m^2. We mention that the barium passage exam achieved three years ago did not document hiatal hernia or gastro-esophageal reflux in Trendelenburg. Based on the clinical data and imagistic results we decided the cure of hiatal hernia by laparoscopic approach. Intraoperative findings revealed gastro-omental adhesions and hepato-gastric adhesions – we removed the adhesions laparoscopically. The exploration of the abdominal cavity also revealed a hiatal hernia which was cured laparoscopically. Postoperative evolution was favorable, the patient was discharged in 3 days with appetite and without fever.
Discussion: The case described discusses the LSG effect on gastro-esophageal reflux disease called inconstant in literature, multiple studies documenting an increased in the incidence of hiatal hernia in patients with laparoscopic sleeve gastrectomy. Also, in this case, the extensive surgical history of the patient made the surgical act difficult.
Conclusions: Hiatal hernia post laparoscopic sleeve gastrectomy is a special category of this pathology and its surgical treatment should be adapted to the particularities of each case. Laparoscopic procedure is safe. Our recommendation is to control aggressively the status of the esophageal hiatus in all obese patients intraoperative and to resolve in the same surgical procedure by calibrating the hiatus.

OP-018

ACCIDENTAL TWIST OF THE INTESTINAL LOOPS IN A OAGB - TECHNICAL SOLUTIONS

Bogdan Smeu, Maura Priboi, Cătălin Copăescu

Ponderas Hospital – Center of Excellence in Bariatric and Metabolic Surgery – Bucharest, Romania

Background: one of the rarest complication in OAGB is the stenosis of the anastomosis due to the twist of the intestinal loops. When compared with other causes of stenosis of the gastro-jejunal anastomosis, the twist of the intestinal loops can only be resolved by surgical approach, refashioning the anastomosis in the correct position.
Method: we present a video of a 42 years old female, with an accidental twist of the intestinal loops during the OAGB for morbid obesity (poorly controlled T2DM – HbA1c 10.7% on insulin treatment). The twist was recognized during surgery, but only after completion of the manual gastro-jejunal anastomosis, and required refashioning of the anastomosis with the omega loop in the correct position.
Results: the postoperative outcome was uneventful. The EWL (excess weight loss) at one month was 24.5%, with the remission of the T2DM (normal serum glucose, no need for oral or injectable medication).
Conclusion: although the OAGB is often considered an easier operation, this case report can only confirm the necessity of an intraoperative protocol for checking the bypass loops and anastomosis at the end of the surgery, because there are some serious potential intraoperative accidents and complications that can negatively influence the postoperative outcome.

OP-019

RESULTS OF SLEEVE GASTRECTOMY IN ADOLESCENT OBESE PATIENTS

Caius Lazăr, Daniela Cristina Barjica, Amadeus Dobrescu, Ciprian Duță

2nd Surgical Department, County Clinical Emergency Hospital "Pius Brînzeu", Timișoara

Introduction: In Romania the changes of the lifestyle and globalization increase the obesity rates among young people. We need to find solutions for this problem and bariatric surgery could be one.

Methods: We present our experience consisting in two cases of adolescents operated on with sleeve gastrectomy. The main outcomes are short and medium terms regarding weight loss and remission of the comorbidities. Secondary objective is to emphasize the role of the multidisciplinary team.
Results: First case is a female, 12 years old, BMI=41.5kg/m^2 - severely obese (greater than 97th percentile), blood tests, gastroscopy showed no significant abnormalities, abdominal ultrasound - hepatomegaly (LHL-77 mm, RHL-143 mm) and biliary dyskinesia. Laparoscopic sleeve gastrectomy (LSG) was performed and five 60 mm blue loads were used. 3 months follow-up: BMI=31.58 kg/m^2 and the abdominal ultrasound showed the liver returned to normal size. Second case a female adolescent, 16 years old, BMI at admission was 37.7 kg/m^2, gastroscopy showed no significant abnormalities, normal blood tests and abdominal ultrasound. Laparoscopic sleeve gastrectomy was performed using 6 blue loads 60 mm long. 3 months follow-up: BMI= 27.9 kg/m^2. Our team consisted of the regular specialists, but was more difficult to be gathered due to special needs of bringing together pediatricians with several supra-specialties gastroenterologists, nutritionists, psychiatrist, anesthesiologist.
Conclusion: Pediatric bariatric surgery should only be performed in specialized centers, with a multidisciplinary team approach. Long-term follow-up will allow a more detailed assessment of the potential of LSG as a safe and effective primary weight management approach for morbidly obese pediatric patients.

OP-020

METABOLIC CHANGES AFTER GASTRIC PLICATION

A. Dobrescu[1,2], D. Barjica[1], C. Lazar[1], G. Verdes[1], L. Stoica[1], C. Duta[1,2]

[1]*IInd Surgery Clinic, Timișoara Emergency County Hospital*
[2]*Victor Babeș University of Medicine and Pharmacy Timișoara*

Introduction: Obesity, a worldwide phenomenon, which already affects more than 600 million individuals is the cornerstone for a wide variety of pathologies, out of which the metabolic syndrome stands out as a major health problem with vital, social and economic implications.
Aim: The purpose of this study is to evaluate the influence of laparoscopic greater curvature plication (LGCP) regarding risk factors on obese patients with metabolic syndrome.
Material and methods: We have conducted a prospective study on 29 patients who have undergone gastric plication, both in our clinic and the Ponderas Center of Excellence in Bariatric and Metabolic Surgery, between January 2012 and January 2013. A follow-up was performed at one month, 3, 6, and 12 months respectively and biological parameters as well as blood pressure, body mass index (BMI), excess weight loss (EWL) were measured for all patients. The inclusion criteria comprised of patients with a BMI > 40 kg/m^2 or patients with a BMI > 35 kg/m^2 with associated comorbidities. Statistical analysis were performed using the "t test".
Results: Most of the patients included in the study were females (82%) and most of the patients had class II obesity (67%), the rest patients had class III obesity. While only waist circumference, BMI and glycaemia had a significant improvement ($p = 0.01$) after one month from the LGCP, by the end of three months both triglycerides and HDL-cholesterol had also significantly improved. Moreover, HDL-cholesterol suffered an important growth in the female population, over 50 mg/dl.
Conclusions: LGCP has shown an improvement on risk factors management of metabolic syndrome. LGCP may be indicated for obese patients with potential risk of developing bleeding complications or fistulous as well as in patients who do not want nearly partial removal of the stomach.

OP-021

FOUR YEARS OF BARIATRIC SURGERY IN "ST. CONSTANTIN" HOSPITAL BRAȘOV

B. Moldovan[1], D.Pocreață[1], Luminița Cîmpeanu[2], Andreea Moldovan[3]

[1]*General Surgery Clinic, "St.Constantin" Hospital Brașov;* [2]*ICU Clinic "St.Constantin" Hospital Brașov*
[3]*Clinic of Infectious Diseases, "St.Constantin" Hospital Brașov,*

Purpose: The paper aims to present our over 4 years experience in bariatric surgery.
Method: "St. Constantin" Hospitals's Bariatric Program began in 2011. A total of 295 bariatric procedures were performed bebfore November, 1st, 2014. Of these, 287 were laparoscopic longitudinal gastric sleeve surgeries, 67 being performed LESS-

SILS approach. Eight (8) cases were performed through open method, 6 after vertical open gastroplasty, 1 after open band explant and a case of giant hernia. We mention as well a case of laparoscopic gastric sleeve after Scopinaro Biliopancreatic diversion and 2 cases of gastric plication (1 laparoscopic, 1 open). Apart from the previously mentioned surgeries there were also performed 2 laparoscopic gastric ring ablation as prime time of a redo surgery. The pre-operative mean BMI was 45, with ranges between 32,6 and 78,7; 7cases exceeding the 200 kg margin. We perform a long "J" shape sleeve, started 2-3 cm above the pilorus and thin, sizeid on 30 Fr bougie for a BMI over 40 or on 34 Fr bougie for a BMI under 40. The current standard for stomach resection is represented by Purple cartridges covered with Peristrip or Tachosil alternatively put on one side, without clogging suturing. For the LESS technique we usually use Olympus Quadport plus.
Results: There was registered one fistula at the stapled line, solved through laparoscopic drainage and conservatory treatment. 97 from 89 type-2 diabetes patients are currently without oral anti diabetic drugs or insulin. The average weight loss was 36 kg and the average hospitalization 2,3 days.

OP-022

THREE AND A HALF YEARS OF BARIATRIC SURGERY AT THE „ST. SPIRIDON" HOSPITAL - EXPERIENCE OF THE ANAESTHETIC TEAM

Daniel Timofte, Serghei Pădureanu, Alina Gavriluț, Mihaela Damian, Marta Chiricuță, Andreea Lupușoru, Adrian Ciumanghel, Mihaela Blaj

„Gr. T. Popa", University of Medicine and Pharmacy, „St. Spiridon" Hospital, Iași, România

Objectives: Bariatric surgery is a challenge for anesthetic/surgical team because the obese patient represents a high risk due to his/hers comorbidities.
Materials and methods used: We analyzed 173 cases of gastric sleeve through celioscopic approach performed between 2012 and 2015 at the St. Spiridon Hospital from Iasi.
Results: The 173 studied patients are distributed as follows: 64% women and 36% men. The age of the patients is between 20 and 63 years. The BMI for these cases is between 32 and 60 kg/m^2. We evaluated the morbidity risk associated with bariatric surgery and created 3 risk classes (reduced, medium and high) based on a score computed from the following parameters (>45 years, male, BMI>50 kg/m^2, HTA and pulmonary embolism). Based on this score 40% of the patients were considered to represent a medium risk and 12% a high morbidity risk. When analyzing the intubation difficulty, we found it to be hard in 3 cases (more than 3 intubation attempts) and medium in 23 cases (a bougie was necessary). 40 % of patients were extubated in the operating room, the remaining 60 % were extubated in 4-6 hours after the surgery ended. We also noticed one case of hemorrhagic shock, one case of rhabdomyolysis and one patient with significant comorbidities that developed peritoneal infected hematoma and organ dysfunction.
Conclusions: Although morbidly obese patients are associated with a high anesthetic risk we did not encounter major problems in the 173 cases operated in St. Spiridon Hospital from Iasi, Romania.

OP-023

BARIATRIC SURGERY: FIRST YEAR OF PRACTICE FOR A NEW CENTRE

Șerban Vasile, Mircea Lică, Diana Toma, Paula Neicuțescu, Rely Manolescu

Life Memorial Hospital, Bucharest, Romania

Bariatric surgery gained a major role in the treatment of severe and morbid obesity. We present our results after one year of constant practice in Life Memorial Hospital (LMH) Bariatric Centre. 70 patients underwent gastric sleeve procedure. Body Mass Index (BMI) at admission ranged from 32 to 53 (mean 41) and most of the patients were women (82%). Laparoscopic gastric sleeve was performed in all patients except one witch had a scheduled open procedure; conversion rate was null. No major complications (leakage or active bleeding) were encountered. Readmision rate was 5.7% (4 patients) mostly for postoperative nausea and vomiting. Only 12 patients reached the one year scheduled control from the beginning of the programme with a percentage excess weight loss (%EWL) of 68.4%.
Conclusion: Low complications rates and weight loss above 50% entitle us to consider that sleeve gastrectomy is a safe and effective method to start with in a bariatric programme.

---

e-POSTERS (P)

P-001

BARIATRIC SURGERY COMPLICATIONS - LAPAROSCOPIC MANAGEMENT

Daniel Timofte, Lidia Ionescu, Ionut Huțanu, Mihaela Blaj

„St. Spiridon" Hospital, Iași, România

Objectives: In early phase of learning curve in bariatric surgery grade 3 to 5 CTCAE complications may occur. The management of them includes a wide variety of surgical and non-surgical maneuvers.
Materials and methods used: 120 patients operated between June 2012 and December 2015 from which 5 patients developed complications from which 2 needed relaparoscopy and 1 radiological guided maneuvers.
Results: A 34 years old male patient presented with extensive ecchymosis of the anterior abdominal wall (probably due to one trocar site hemorrhage), conservatively treated. Another 24 years old male patient presented nausea and vomiting in the first postoperative day and an intraabdominal hematoma due to gastric stump hemorrhage mimicking a gastric volvulus successfully managed laparoscopically. A 53 years female patient with comorbidities: sleep apnea, systemic lupus erythematosus which developed a first episode of hemorrhage in the first postoperative day and laparoscopic hemostasis was provided. One week after discharge the patient was readmitted with signs of hypovolemia and intraperitoneal bleeding. A new laparoscopic exploration was needed and it revealed hemoperitoneum without evidence of source. The patient developed a left upper quadrant abscess managed by ultrasound guided drainage and then pressure wound at one buttock which needed plastic surgery.
Conclusions: Considering the particularities of these cases all the efforts should be made to manage the postoperative complications with minimally-invasive methods and to avoid a laparotomy

---

P-002

DOES BARIATRIC SURGERY MODIFY THE LIPIDIC METABOLISM?

Daniel Timofte, Ioana Hristov, Lidia Ionescu, Veronica Mocanu

„St. Spiridon" Hospital, Iași, România

Objectives: The main goal of bariatric surgery is to decrease the BMI consequently improving the quality of life but also to treat its comordidities and prolonging the life expectancy. One of the mechanisms of improving comorbidities is metabolic response after surgery. The aim of our study is to evaluate the impact of bariatric surgery on main components of lipidic metabolism.
Materials and methods: 120 obese patients from a prospectively collected database, operated between June 2012 and November 2015 were included. Basal and 1, 3, 6 and 9 months after surgery serum levels of triglycerides and cholesterol with its fraction LDL, VLDL and HDL were recorded.
Results: Mean age was 45,06 (range 24 – 69 years), mean BMI was 43,1 kg/m2 (range 35 – 65). Main intervention was gastric sleeve 115 out of 120 (95,83 %). CTCAE 3-4 morbidity rate was 4,1%. Mean follow-up was 9 months (range 1 – 20). Despite the decreasing trend of cholesterol we could not find a statistically significant correlation between the basal and follow-up levels. Triglyceride levels have decreased between the 3 and 6 months of follow-up and the difference has got statistical relevance.
Conclusions: The impact of bariatric surgery was mainly on triglyceride levels. The main drawback of the study was the small lot of patients. A larger study is warranted.

P-003

NOTES - GASTROJEJUNOSTOMY VERSUS ENDOSCOPIC ULTRASOUND (EUS) - GUIDED GASTROJEJUNOSTOMY IN MANAGING OBESITY A FEASIBILITY STUDY ON PIGS

A. Saftoiu[*1,7], V. Surlin[2*], B.S. Ungureanu[1], S. Ramboiu[2], St. Patrascu[2], Nicoleta Alice Dragoescu[3], Elena Daniela Burtea[1], Florina Nechita[4], E. Georgescu[1], L. Gruionu[5], Carmen Daniela Nicolau[6], P. Vilmann[7], F. Turcu[8], C. Copaescu[8]

[1]*Research Center of Gastroenterology and Hepatology of Craiova, Romania*

[2]*Department of Surgery, University of Medicine and Pharmacy of Craiova, Romania*
[3]*Department of Anesthesiology, University of Medicine and Pharmacy of Craiova, Romania*
[4]*Department of Psychopedagogy, University of Medicine and Pharmacy of Craiova, Romania*
[5]*Faculty of Engineering and System Management, University of Craiova, Romania*
[6]*Center for Integrative Medicine "Lotus Life" Gastroenterology Private Hospital, Targu-Mures, Romania*
[7]*Endoscopy Department, Gastrointestinal Unit, Copenhagen University, Herlev Hospital, Denmark*
[8]*Ponderas Hospital – Center of Excellence in Bariatric and Metabolic Surgery – Bucharest, Romania*

Background: Over the past years, endoscopic therapies have been evaluated, as they are considered the next step in minimal invasive surgery, with multiple advantages as compared with conventional or laparoscopic interventions. With laparoscopic gastric bypass in treating morbid obesity as the golden standard, alternative endoscopic procedures are currently tested, with the ultimate goal to develop a therapeutic method with less physical discomfort and faster recovery for patients.
Objective: To compare Natural Orifice Transluminal Endoscopic Surgery (NOTES) versus Endoscopic Ultrasound (EUS)-Guided Gastrojejunal Bypass (EUS-GJJ) in experimental pig models.
Materials and methods: Under general anesthesia, 4 pigs were subjected to a gastrojejunal bypass (GJJ), being divided in two groups. NOTES intervention were performed with an endoscope which allowed gastric incision and peritoneal visualization. Consecutively, laparoscopic access was realized and a jejunal loop was placed near the gastric wall incision and sutured. EUS-guided procedure consisted of an enteric balloon inflated away from the duodenum and visualized under EUS-imaging. The next step was to deploy a lumen apposing hot metal stent (Xlumena, Mountain View, USA) nearby the balloon on EUS-guidance. All pigs were clinically followed for the next two weeks concerning food intake, weight and behavior, and necropsy was subsequently performed
Results: Technical success was observed in both experiments. The mean time for EUS-GJJ was shorter than NOTES-GJJ with almost 20 minutes. All animals showed normal eating behavior without any sign of infection within the follow up. No stent migration and no suturing complications were observed. Necropsy showed complete adhesion between the stomach and the jejunum wall in all cases.
Limitations: Small number of animals. The pylorus was not closed.
Conclusion: Both procedures prove to be technically safe, with no side effects on follow-up. EUS-GJJ seems to be more accurate for choosing the specific length of the jejunum when using an enteric balloon, and much faster as compared to a NOTES technique.
Acknowledgement: This article was financed by the Partnership program in priority areas - PN II, implemented with support from National Authority of Scientific Research (ANCS), MEN-UEFISCDI, project nr. PN-II-PT-PCCA-2013-4-1257 (GEMINI)

P-004

METABOLIC PROFILE IN OBESE PATIENTS: THE BARIATRIC SURGERY IMPACT

Daniel Timofte, Ioana Hristov, Veronica Mocanu

„Gr. T. Popa", University of Medicine and Pharmacy, „St. Spiridon" Hospital, Iași, România

Objectives: Abdominal obesity is associated with an increased risk of coronary heart disease, in part due to a chain of systemic disorders starting with insulin resistance and including: atherogenic dyslipidemia (high triglycerides and low HDL cholesterol), raised blood pressure and raised fasting plasma glucose.
Materials and Methods: Between July 2013 and December 2014, 60 patients (35 females and 25 males, mean age 39.1 ± 9.1 years) with mean BMI 43.5 kg/m2 ± 7.9 were enrolled. The metabolic syndrome parameters were evaluated in all patients before and 6 months after the metabolic surgery procedure.
Results: 6 months after surgery Weight loss was significant, with an average EWL of 31,2 %. Mean triglycerides value at baseline was=136 mg/dl vs 113 mg/dl 6 months after bariatric surgery (reduction of 16,9%); high level of triglycerides at baseline were found in 46.2% of patients vs 26,3% 6 months postoperatively; Low levels of HDL- was objectified in 74,42% of the patients before surgery vs 42,85% 6 months after surgery (significant 31,57% reduction). Fasting glucose levels > 100 mg/dl was found in 51,4% of the patients. Diagnosis of T2DM was present in 41,1% of the patients and after 6 months all the patients had normal levels.
Conclusions: The high prevalence of the metabolic syndrome in obese patients offers an additional indication for bariatric surgery, as the metabolic profile for these patients is significantly improved postoperatively. This study confirms the existing data on the benefits of the metabolic surgery as the most effective therapy for T2DM and atherogenic dyslipidemia.

P-005

CHALLENGES AND PITFALLS OF LAPAROSCOPIC SLEEVE GASTRECTOMY AND HIATAL HERNIA REPAIR IN SITUS INVERSUS TOTALIS

Maura Priboi, Cătălin Copăescu

Ponderas Hospital – Center of Excellence in Bariatric and Metabolic Surgery – Bucharest, Romania

Background: Situs inversus totalis is a rare autosomal recessive genetic condition in which all the organs are arranged in a perfect miror image reversal of the normal positioning. Due to the contralateral disposition of the viscera, the diagnosis and laparoscopic surgical approach of these patients may be more difficult than that of orthotropic patients. Starting from 1991 when Campos and Sipes described the first case of laparoscopic cholecystectomy in situs inversus, other cases of laparoscopic surgery in patients with this condition have been reported in a small number of cases, less than 100 cases worldwide until nowadays, most often for cholecystectomy and much less in the field of laparoscopic bariatric surgery (gastric banding, gastric bypass or sleeve gastrectomy).We present a patient with morbid obesity, hiatal hernia and situs inversus, highlighting the unique anatomy and emphasizing the technical challenges and pitfalls in this case.
Methods: All the investigations performed preoperatively confirmed the reversed positioning of the abdominal organs (upper gastro-intestinal radiological studies, ultrasonography, computed tomography). Technical details of the laparoscopic sleeve gastrectomy and hiatal hernia repair, with situs inversus totalis, are presented.
Results: The entire procedure was performed using the reverse of the normal surgical set-up. Appropriate port insertion and surgeon positioning are essential to tackle this problem. Due to the particularity of this case, the position of the video monitor and of the instruments (coagulation instrument, graspers, staplers, liver retractor) were reversed. The main difficulties were the use of the left hand as the right hand and proper understanding of the anatomy at the gastro-esophageal junction. Still we did not experienced a longer operative time or more complications.
Conclusions: The laparoscopic approach in cases of situs inversus is feasable, although more complex while the mirror image anatomy not only demands greater surgical skill but also requires careful pre-operative planning for setting up the operation theatre, the positioning of the surgical team, the ports and instruments. Certain technical aspects of this type of surgery are challenging and it is recommended that an experienced laparoscopic bariatric surgeon carry out the procedure but similar outcomes are expected.