

**Results.** 47.54% of the patients were over 30 years. 95.08% of the patients were men. 65.57% of the patients live in Chisinau (urban medium). Most traumatic injuries were produced by stab wounds (95.08%). 65.57% of patients had omental evisceration, small intestine in 29.52%, colon in 4.91%. Haemodynamically unstable patients with peritonitis (64.0%) prevailed over the stable ones (36.0%). 9 patients (14.75) of those who were stable were treated with SNM, including 4(6.55%) cases of failed approach, 5(8.19%) patients were successfully managed and other 13(21.31%) patients underwent laparotomy with complication in 7 cases (11.47%). Twenty-nine patients (47.54%) hadn't any major intra-abdominal injury. Patients successfully managed by SNM (5 cases) had significantly shorter hospital stay than those who underwent non-therapeutic laparotomy (13 patients). Average hospital stay for patients treated by SNM are in 80% was less than 3 days and for patients with laparotomy in 69.23% less than 9days.

**Conclusions.** This study has demonstrated better efficiency of SNM for the stable patients that a significantly less complication rate than patients treated operatively and a shorter hospital stay. SNM is necessary to minimize preventable morbidity and mortality for the stable patients. Although the rate of nontherapeutic laparotomies after penetrating wounds to the abdomen should be minimized, this should never be at the expense of a delay in the diagnosis and treatment of injury.

**Key words:** penetrating abdominal trauma, evisceration, laparotomy, selective nonoperative management, complication

### **132. PROTOTYPE OF THE PROSTHESIS FOR RESTORATION OF THE TRACHEA INTEGRITY AFTER ITS RESECTION**

Author: **Gheorghii Bohanov**

Scientific adviser: Volodymyr Kryvetsky, PhD, Associate-professor, Department of Thoracic Surgery

National *Pirogov* Memorial Medical Univeristy, Vinnytsia, Ukraine

**Introduction.** An optimal way to restore the integrity of the trachea after its resection is an "end to end" anastomosis. But, with the removal of large fragments of the trachea, and especially restenosis correction, there are difficulties that can be eliminated by prosthetics. However, the issue of material selection for tracheal prosthesis remains unresolved and relevant.

**Aim of the study.** To develop a model of alloprosthesis of the fragment of a trachea and to test it on a living organism; during the intraoperative adaptation to identify possible structural deficiencies and correct them.

**Materials and methods.** Linear vascular prosthesis 10 mm in diameter, tracheobronchial stent "Ultraflex", suture material, a set of surgical instruments, preparations for intravenous anesthesia, dressing material. Accounting documents and statistical indicators of the activities of the Department of Thoracic Surgery Vinnytsia Regional Clinical Hospital named by M.I. Pyrogov for 2004-2018. Applied methods of scientific subject modeling, analytical and comparative analysis. An in vivo prosthesis trial was performed on a not thoroughbred rabbit weighing 4100 grams. The intervention consisted of sewing the prosthesis in the trachea of the animal after its intersection with the imposition of two "end-to-end" anastomosis.

**Results.** In the period between 2004 – 2018 seven circular trachea resections (4 - cervical and 3 - mediastinal divisions) were carried out, all - concerning posttraheostomy stenoses. The length of the resected segment was from 2 to 5 rings. The connection of the ends at the removal of 4 or more rings caused some technical difficulties, although the observation ended with the recovery of patients. The expediency of replacing the fragment of the trachea in such cases led to an attempt to develop a prosthetic of its own design. Testing this model of a denture in a living organism has highlighted some of its structural deficiencies, which influenced the course of

intervention and the early postoperative period. In particular, during the intervention there was a problem of adaptation of the ends of the prosthesis to the ends of the trachea. And after the operation there was a partial occlusion of the prosthetic lumen due to adhesion of the blood clots to its internal surface. Taking into account the experience gained, we have made changes in the design of the implant. The new model of tracheal dentures seems rather promising for use.

**Conclusions.** The prototype of the prosthesis manufactured by us meets most of the modern requirements and our goals. In the future, the use of the implant of the proposed type can simplify the course of the resection of large tracheal fragments and contribute to avoiding a number of perioperative complications.

**Key words:** trachea, prosthesis, integrity restoration, resection

### 133. THE EVOLUTION OF METABOLIC SYNDROME AFTER GASTRIC BY-PASS

Authors: **Veronica Spinei, Mihaela Lupascu**

Scientific adviser: Balan Sergiu, University assistant, Department of Surgery no.1 *Nicolae Anestiadi*

*Nicolae Testemitanu* State University of Medicine and Pharmacy of the Republic of Moldova

**Introduction.** Metabolic syndrome in the past decade knows an alarming growth worldwide. Each year 3.2 million people around the world die from complications of the metabolic syndrome. The Oman Family Study reported a prevalence of metabolic syndrome in the world of 23%. In the Republic of Moldova, based on the International Diabetic Federation (2009), prevalence is estimated at 23,7%. The treatment of metabolic syndrome is often symptomatic and patients have to take medications for each disorder. Disadvantage of these medications is that they don't treat the pathology, but only relieve symptoms and help to maintain the values of analyzes in normal limits. An alternative solution of this problem can serve gastric bypass surgery.

**Aim of the study.** To assess the efficiency of gastric bypass in evolution of the metabolic syndrome in the context of morbid obesity.

**Materials and methods.** The study was performed on a group of 226 people who underwent gastric bypass surgery between 2009-2018, including 63 men and 163 women. The average of the weight before surgery was 123.22 kg, average of body mass index was 44.03kg/m<sup>2</sup>. Metabolic syndrome was diagnosed in 106 patients, (47%), including: patients with hypertension - 62 (55%), with diabetes mellitus - 58 patients (51%), with hyperlipidemia - 87 patients (82%).

**Results.** One year after surgery we have noticed a positive evolution of the metabolic syndrome with the following parameters: weight average – 82.95 kg, average of body mass index – 29.53kg/m<sup>2</sup>. In 89% of patients remission of hypertension was registered, remission of diabetes mellitus - in 95% of patients, and remission of hyperlipidemia - in 96.55% of patients.

**Conclusions.** Gastric bypass surgery represents an effective method of treatment of the metabolic syndrome and its comorbidities. Obesity surgery improves health among adults with severe obesity. Gastric bypass is indicated to treat morbid obesity, type 2 diabetes, hypertension, and other comorbid conditions. After interventions patients lose up to 64.06% of their excess weight within 1 year, blood pressure normalizes, blood sugar gets normal, and hyperlipidemia returns to normal limits.

**Key words:** metabolic syndrome, gastric bypass surgery

### 134. VIDEO-ASSISTED THORACOSCOPY - THE OPPORTUNITY IN THE MANAGEMENT OF THE COMPLICATED THORACIC TRAUMA

Authors: **Ion Cigoreanu, Ion Florea**