

advanced cardio-vascular and pulmonary diseases. Axilo-femoral and femuro-femoral by-passes being far less traumatic than their aortofemoral counterpart (although hemodynamically less favorable) are indicated in arteriopathic patients to save limbs in critical ischaemia, but not to treat intermittent claudication. In patients with vascular trauma associated with infected wounds, the extraanatomical by-pass is the procedure of choice.

Keywords: Extraanatomical by-pass, vascular grafts, crossover by-pass

15. NONTHERAPEUTICAL EXPLORATORY LAPAROTOMY VS HEMOPERITONEUM SOLVED NONOPERATORY: EXPERIMENTAL STUDY BY COMPARISON

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Introduction: The nonoperative approach to patients with traumatic injuries of intraabdominal parenchymal organs with hemoperitoneum considering its local and systemic effects still represents an issue discussed and controversial because of yet unknown evolutionary aspects of hemoperitoneum. The morphological, biochemical and bacteriological analysis of hemoperitoneum solved nonoperative in comparison to the changes induced exploratory laparotomy by means of experimental study.

Materials and methods: 23 rats, divided in: group I (n=17) – hemoperitoneum with nonoperative approach (HP-TNO), which has been introduced integral blood intraperitoneal (V=3,0 ml); group II (n=6) – exploratory laparotomy (LE). The rats were sacrificed after 25 days, the adhesion process were noted using known scores, biochemical and bacteriological modifications also.

Results: Adhesions were observed in the entire LE group of rats (100%) and only in 13,3% HP-TNO group ($p<0,05$). Adhesions in the LE group was vascularized and significantly thicker and more resistant ($p<0,05$), in LE group adhesions involved from 25% to 75% of the injured surface in comparison to HP-TNO group where adhesions involved only less than 25% surface from the initial place of blood inoculation. All 25 adhesions (in 6 rats) in the LE group were divided, according to Binda, as follows: 2 - gr. I, 15 - gr. II, and 8 - gr. III versus HP-TNO group with 2 - gr. I adhesions. The adhesions total score was significantly higher in LE group. The blood collected from rats was examined biochemically to determine medium molecular weight substances (SMMM), necrotic substances (SN), urea, serum iron and total protein. We found significantly higher level of SMMM in LE group ($p<0,05$), indicating increased protein degradation processes. It was established also an insignificant prevalence value of SN in LE group indicating increased inflammatory process. The peritoneal fluid and mesenteric lymph nodes cultures showed no bacterial growth, which means no bacterial translocation in both groups of rats.

Conclusion: The experimental study demonstrates that nonoperative treatment of hemoperitoneum does not involve additional risks and is less aggressive than nontherapeutic exploratory laparotomy this is confirmed by significantly lower adhesion process and biochemical indices showing predominance of degradation processes in rats with laparotomy. The negative bacteriological tests invalidate the bacterial translocation hypothesis under haemoperitoneum.

Key words: hemoperitoneum, nonoperative treatment, exploratory laparotomy

16. TRAUMATIC DIAPHRAGMATIC RUPTURES

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Introduction: Traumatic diaphragmatic ruptures (TDR) present significant diagnostic challenge and are potentially fatal. TDR are uncommon, the best majority being induced by blunt abdominal trauma, still these can be induced by abdominal, thoracic or thoraco-abdominal wounds.

Material and Methods: During February 2012 – March 2014, in our department were treated 19 patients with TDR. Etiology, site and injury dimensions, ISS and RTS scores, method and treatment results were analyzed.

Results: There were 16 (84.21%) males and 3 (15.79%) females, with the mean age 30.05 ± 10.36 (95% CI 25.06 – 35.04) years. Male:female ratio was 5.33:1. Blunt trauma was observed in 7 (36.84%), while wounds were diagnosed in 12 (63.16%) cases. The left diaphragm was injured in 12 (63.16%) and the right-one – in 7 (36.84%) cases. The mean injury size was 7.5 ± 6.1 (95% CI 4.55-10.44) cm. Left-sided mean injury size was 6.41 ± 5.39 cm (95% CI 2.98-9.84), right-sided mean injury size was 5.5 ± 6.69 cm (95% CI – 0.68-11.69) ($p=0.52$). The mean ISS and RTS were 22.53 ± 12.32 (95% CI – 16.59-28.46) and 7.342 ± 1.053 (95% CI – 6.834-7.849) respectively. In 13 (68.42%) cases the diagnosis was established < 12 h; in 1 (5.26%) 13-24 h and in 5 (26.32%) > 24 h after admission. Preoperative TDR was diagnosed in 9 (47.36%) cases by thoraco-abdominal X-Ray and CT. In all the cases the lesions were sutured using permanent sutures (15 by laparotomy, 1 by right-sided thoracotomy, 1 laparoscopically, 1 by laprotomy with right-sided thoracotomy and 1 by laprotomy with left-sided thoracotomy). Postoperative death-rate was 1 (5.26%).

Conclusions: The left part of the diaphragm is more frequently affected. Preoperative diagnosis is difficult.

Keywords: trauma, diaphragm, injury

17. MORPHOLOGICAL ARGUMENTATIONS IN COMPLICATIONS OF ESOPHAGEAL ATRESIA WITH LOWER ESOTRACHEAL FISTULA

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Introduction: Despite the notable success achieved in the treatment of esophageal atresia, the respiratory and gastrointestinal complications are observed quite frequently, some of them persisting throughout the whole life. Esophageal motility disorders occurring after successful surgical treatment of esophageal atresia with tracheoesophageal fistula are quite common, the etiology of which remains controversial. Anastomotic dehiscences, dysphagia, gastroesophageal reflux, impaired or absent peristalsis are the changes recorded clinically, radiologically, scintigraphically and endoscopically.

Purpose and Objectives: to analyze the spectrum of pathomorphological changes revealed in both atretic segments of the esophagus in cases of esophageal atresia with lower esophageal-tracheal fistula responsible for the development and evolution of postoperative complications.

Materials and Methods: The histopathological study was performed on 21 cases, which included necropsy material performed on unoperated specimens from 8 newborns with esophageal atresia and distal tracheoesophageal fistula, in 13 cases - from operated newborns. Evaluation of macro- microanatomic peculiarities in esophageal atresia with lower esotracheal fistula was performed at 3 levels: upper atretic segment, esotracheal fistula level and lower segment. Serial sections were made of both the proximal segment (blunt) of the esophagus and distal segment with fistula. Methods for staining with hematoxylin-eosin, van Gieson and orceine were used.

Results of this study allowed to conclude:

- Presence of advanced structural pathomorphological changes can significantly influence the regenerative-reparative processes of the esophagus after reconstructive operations in cases of esophageal atresia with distal tracheoesophageal fistula.

- Fibro-muscular dysplastic changes concomitant with pathological changes of ganglioneuronal structures are responsible for oesophageal motility disorders after reconstructive operations in cases of esophageal atresia with distal tracheoesophageal fistula.

- In cases of esophageal atresia with distal tracheoesophageal fistula some concomitant structural defects may be present (non-communicating intramural duplicates of the proximal atretic segment, communicating esophageal duplicates of the distal segment) that remain undiagnosed preoperatively and during surgery, causing significant postoperative complications including anastomosis failure.