advanced cardio-vascular and pulmonary diseases. Axilo-femural and femuro-femural by-passes being far less traumatic than their aortofemural 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: EXPERITMENTAL STUDY BY COMPARISON

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**Introduction:** The nonoperatory 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 nonoperatory 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 nonoperatory 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 nonoperatory 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, nonoperatory 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.