

USE OF AMOXICILLIN FOR THE PREVENTION POSTOPERATIVE COMPLICATIONS IN EXPERIMENTAL TRAUMATOLOGY

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Introduction: Nowadays using an antibiotic therapy in traumatology is very actual. When the healing of an open fracture is performed by using intramedullary osteosynthesis, this includes the possibility of bacterial infection penetration. Bacteria produce a virulence-related polysaccharide exocellular slime (the glycocalyx), which preferentially adheres to the surfaces of implant. This biofilm resists antibiotic penetration and provides a degree of protection from antibodies and macrophages (A.Gristina, 1984). Often *Staphylococcus* spp. bacteria are the cause of osteomyelitis. To prevent the postoperative complications antibiotics of a broad spectrum: cephalosporins, aminoglycosides, clindamycin, fluoroquinolones, amoxicillin-clavulanic acid are used. Slatter, 2003). 15% amoxicillin has a broad action spectrum and has a long time of effect (48 h). The use of penicillins (amoxicillin) in rats is limited because rats are hypersensitive (anaphylaxis in repeated application) and amoxicillin can cause enterotoxemia. The aim of our research was to emphasize the opportunity of using amoxicillin in preventing the postoperative complications after intramedullary osteosynthesis.

Methods: Female Wistar rats (N=27) were used in the experiment. In all the cases an open fracture of tibia middle third was made. After skin incision of the internal surface of the shin an approach to tibia was performed. Then tibia was fractured in the middle third. Healing of fracture was made by using K-wire (intramedullary osteosynthesis) with different covers: steel (n=9), calcium phosphatis (n=9), hydroxyapatite (n=9). To prevent infectious complications after surgery amoxicillin 15% (15 mg/kg intramuscular) was once injected. Control of animal condition and suture condition was done daily for 35 days. Furthermore X-ray examination of the fracture zone on the 14th and 35th days carried out.

Results: There were no infectious complications in all experimental groups during the postoperative period. There were no cases of enterotoxemia. During the first week edema of the operating shin was observed. On the 8th day after surgery all rats moved freely and stepped on the operated paw. X-ray showed absence of osteomyelitis signs on the 14th and 35th days after surgery.

Conclusions: This investigation shows that 1 injection of amoxicillin (15 mg/kg intramuscular) is advisable for the prevention of infectious postoperative complications in rats with open bone fracture. This drug is easy to be used and not expensive.

CLINICAL AND SCINTIGRAPHIC ASSESSMENT OF THE SPHINCTER OF ODDI DYSFUNCTION IN THE PATIENTS WITH POSTCHOLECYSTOMY SYNDROME

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Introduction: The standard diagnostic for sphincter of Oddi dysfunction (SOD) is manometry, a technically difficult, invasive test that is frequently complicated by pancreatitis. Non-invasive hepatobiliary scintigraphy in cholecystectomised patients using a complex scoring system have been promoted as sensitive and specific alternatives. Sostre *et al.* proposed a score which combines quantitative and visual criteria for interpretation of hepatobiliary scans.

Aim: Evaluation of different types of sphincter of Oddi dysfunction using the Scintigraphic Score

Materials and methods: Thirteen patients with SOD were prospectively enrolled. Hepatobiliary scintigraphy was performed to all patients. Normal sphincter had scores 0-4 points, while patients with SOD had values of 5-12 points. Patients were divided into 2 groups depending on the scintigraphic score appreciated <5 or >5 points. The evaluated criteria were algic and dyspeptic syndrome, biochemical and ultrasound parameters.

Results: Four patients (score <5 points) caused equally (50%) pain with swelling and pressure character, evolution in accesses, located predominantly in the right upper quadrant and epigastrium with irradiation (double-duct type of SOD). In nine patients was assessed pain with pressure character, constant, located predominantly in the right upper quadrant (66.6%) with irradiation, associated with cholestatic syndrome (biliary type of SOD).

Conclusions: In patients with scintigraphic score > 5 points was established the biliary of sphincter of Oddi dysfunction. Hepatobiliary scintigraphy scored may become the noninvasive test of choice to screen postcholecystectomy patients with suspected sphincter of Oddi dysfunction.

Keywords: postcholecystectomy syndrome, sphincter of Oddi dysfunction, scintigraphic score.

DIFFICULTIES IN IDENTIFICATION OF TRAUMATIC DIAPHRAGMATIC INJURIES

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Introduction: The diagnosis of traumatic diaphragmatic injury (TDI) still remains a real challenge for the surgeons, and its delay can lead to unfavorable outcomes.

Purpose: Assessment of diagnostic tests for the patients with TDI.

Methods: The casuistic comprises 17 consecutive patients with TDI admitted to the Emergency Department from 2008 to 2011. The average age was 31 (ranging 17-56) years, with a sex ratio 4,7:1 (male:female). Penetrating thoracoabdominal trauma predominated (76,47%) over blunt injury. There were fourteen (82,35%) left-sided diaphragmatic ruptures. The underlying mechanism for TDI was assaults – 64,70%, followed by falls – 17,65% and motor vehicle collision – 17,65%. The average time from hospital admission to surgical management was 89 (ranging 20-180) min for penetrating wounds, and 806 (ranging 65-2220) min for blunt trauma. The median systolic blood pressure and heart rate were 109 (ranging 40-160) mmHg, and 96 (ranging 74-130) beats per minute, respectively. There were five (29,41%) patients in hypovolemic shock. Alcohol intoxication was present in 35,29% of the cases. The associated injuries in these patients included hollow viscus laceration (5), liver laceration (5), splenic laceration (4), lung injury (3), rib fractures (2), limb fractures (2), pelvic fracture (2), pancreatic injury (2), kidney laceration (1), urinary bladder injury (1), head injury (1). The average Injury Severity Score (ISS) was 27 (ranging 12-48). Only three patients (17,65%) had solitary diaphragmatic injuries. The distribution of severity of diaphragmatic injuries by grade was: grade I – 17,64%, grade II – 41,18%, grade III – 29,41%, grade IV – 11,77%.

Results: The majority of patients (62,50%) with penetrating wounds were sent straight by to the operating theatre for vital signs: predominantly performed by laparotomy, and only in 2 cases by thoracotomy. Other patients have been investigated: fourteen patients had chest radiographs, with four (23,53%) patients suspicious of a diaphragmatic rupture, CT scan – performed in 2 cases, excluded TDI. Laparoscopy