

A medical simulator is a perfect training tool, which allows the practitioner to err and to develop enough competencies at performing these procedures without endangering real patients, what is not achievable by traditional methods of education.

Methods: In order to introduce the prevail of the simulation based education over the traditional methods, we have a qualitative synthesis of information from three leading simulation centers world wide (Medical Simulation center at Tel Ha shomer hospital in Ramat-Gan, Israel, Northwestern Memorial hospital's simulation center- Florida, USA, John Hopkins simulation center- Maryland, USA,). We have compared the results that were achieved by medical staff that was trained by traditional methods only to medical staff who underwent a training with medical simulators additionally to the traditional methods. In this study we compared 4 parameters of the whole that were checked at the scenarios which tested the participants: a) Time took to recognize the emergency situation b) Deviation of American Heart Association protocols c) Attempts till successful Endotracheal tube insertion d) Benefit analysis cost.

Results: All the participants in the studies were tested by checklist that included criteria for evaluation in the whole parameters the "Traditionally Trained"(TT) medical staff achieved worse results, than the "Simulation Trained"(ST) medical staff. At the TT group only 88% percent recognized the emergency situation while in the ST group 98% percent recognized the emergency situation. Moreover the TT trained group performed successful endotracheal insertion by more attempts (3-4) than the ST group (1-2). Within the two groups there were deviations from the American Heart Association protocols but the ST group deviated less times while running the protocols. The fourth parameters concern the financial aspect of the education by simulators versus traditional methods. By using simulators less equipment were broken or missused in the real situation, the annual benefit from the simulation center was on average 131,000\$ annually and the spending of establishing such a one returned itself approximately 131 days from the beginning of its action.

Conclusions: Using a simulation based educational program scenary, enables to achieve better results at the acute care department. All these are attainable thanks to providing trainee ability and to correct his future actions without endangering the real patients. The variety of the scenarios enables us to promote the usage of simulators at any step of education of a medical staff, starting with students and finishing with residents and specialists. Thus it is quite good addition that improves our skills and make us better specialists.

Key words: Medical Simulation Center, American Heart Association, Cardio Pulmonary Resuscitation mulatiom center- FFlorida, USAs simulatiom center- Florida, USAhered information from five simulations centers world wide en

SURGICAL TREATMENT OF ACUTE MESENTERIC ISCHEMIA

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Introduction: Acute mesenteric ischemia (AMI) is an abdominal catastrophe. Advanced age and diagnosis delay are associated with increased morbidity and mortality rates. The optimal surgical strategy for AMI is under evaluation.

Aim: To evaluate the early results of different treatment strategies for AMI.

Material and methods: During last three years a total of 35 consecutive pts with AMI were admitted to our unit. The mean (\pm SD) time interval between AMI symptoms onset and admission was 34.7 ± 2.1 h.

Physiological parameters (mean±SD) of pts were: ASA score - 3.3±0.1, APACHE score - 25.2±1.6 and POSSUM - 36.9±1.8. In most cases AMI was induced by superior mesenteric artery (SMA) embolism (54.3%, n = 19) followed by SMA thrombosis (25.7%, n= 9) and venous thrombosis (VT) (20%, n=7).

Results: The affected bowel segments were: small intestine (n=16), small intestine + colon (n=13) and total ischemia (n=6). Surgical procedures were as follows: small intestine resection (n=14) with SMA embolectomy (n=2), small intestine + right colon (n=12) and small intestine + subtotal colectomy (n=1). In two cases of VT affected intestinal segments were not resected, instead anticoagulation treatment was initiated and the intestinal viability was confirmed by second-look laparotomy. Explorative laparotomy was used only in advanced intestinal gangrene (n=6). Twenty five pts with massive injury were scheduled for staged damage control approach (immediate resection of the involved bowel without gastrointestinal continuity reconstruction, patients' resuscitation in ICU) combined with Negative Pressure Wound Therapy (V.A.C., KCI or homemade) and later on definitive reconstructive procedure (delayed anastomosis). Primary anastomoses were performed only in 2 pts with short segmental intestinal infarction. The overall 30-days mortality rate was 24/35, 68.5% (in non-total AMI - 18/29, 62%, in VT zero).

Conclusions: Early diagnosis and prompt surgery improves the AMI outcome. Colon involved in AMI is a poor prognosis sign. Damage control approach improves the AMI patients' survival.

Key words: acute mesenteric ischemia, surgery, damage control.

MINIMALLY INVASIVE TREATMENT OF BACTERIAL ABSCESES OF THE LIVER

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Introduction: The problem of early detection and treatment tactics in liver abscess in our time is not fully resolved, due to lack of in-depth study of this section surgery.

Aim: The study of the effectiveness and improve puncture - aspiration treatment of patients with bacterial abscesses of the liver under laparoscopic control, reduction of morbidity and mortality.

Materials and methods: Over 10 years in the hospital cured 72 patients with BAP, including men - 41 (58%), women - 31 (42%). The patients' age from 19 to 72 years, an average of 51,7 ± 3,2 years, 40.2% were older than 50 years. Applied (in various combinations), the following methods: clinical, laboratory, ultrasound (ultrasonography) or computed tomography (CT), laparoscopy, cytological and bacteriological examination of the contents of a bacterial abscess of the liver. For the ultrasound device used sonographic «Dornier-5200» in color Doppler, using probes of 3.5 and 5 MHz. For laparoscopy and interventions under the control of machines and tools used firms «Wolf» and «Karl Storz» (Germany). BAP drainage was carried out by the installation of drainage Seldinger. Biliary drainage for used self-locking drainage «Meadox» and «Cook».

Results: The patients were divided into two groups according to age, sex, location of abscess, the severity of the initial state. In group I included 34 patients who were operated on during the period 2001 - 2005. Using conventional surgical methods. In the II group included 38 patients who were hospitalized in 2006 - 2010. Surgery was carried out by puncture or drainage under laparoscopic control. In the first group of patients (34), after laparotomy, hepatotomii, sanitation and drainage of purulent center, 7 (20.6%) had observed complications (wound abscess, pneumonia) and 1 patient died from sepsis. Average length of stay in hospital the patient was 27 ± 1,9 days.