

## THE EXPERIENCE IN THE RECONSTRUCTION OF INFERIOR VENA CAVA IN CASES OF RENAL CANCER METASTATIC CAVAL WALL INVASION

Cerevan E., Castraveț A., Stegarescu P.

*Academic advisor:* Castraveț A., M.D., Ph.D, University Assistant, State Medical and Pharmaceutical University “Nicolae Testemițanu”, Chisinau, Republic of Moldova

**Introduction:** In patients with malign renal tumors, inferior vena cava is involved in 4-10%, thus representing a serious barrier for radical intervention.

**Aim of study:** The aim of this study is to analyze the results of surgical treatment of 18 patients (in 15 cases the right kidney was involved, in two cases the left and one case the only right kidney), with metastatic caval wall invasion, metastatic thrombus in the inferior vena cava, and metastasis of paracaval and paraaortal lymph nodes.

**Material and methods:** The preoperative diagnosis was made using ultrasonography, duplex scanning, CT angiography and angiography. Preoperative renal artery embolization was preferable. All patients underwent nephrectomy with retroperitoneal lymph nodes dissection. The reconstruction of the inferior vena cava was made by several methods: removal of the metastatic thrombus with caval suturing, resection of vena cava with grafting or patching. In 15 cases the tumoral caval wall invasion was demonstrated by postoperative histology analysis.

**Results:** There has been one intraoperative lethal case in a patient that had a cardiopulmonary bypass system applied for removal of a metastatic thrombus that has reached the right atrium. The cause of death was disseminated intravascular coagulation. In 15 cases the postoperative outcome was satisfactory, without major complications. In one case the patient is dependent of hemodialysis.

**Conclusion:** The achieved results indicate that resection of the affected cava with its grafting is the elective method for a more effective treatment of these tumors.

**Keywords:** inferior vena cava, renal cancer, grafting of vena cava.

## COMPARISON BETWEEN TRADITIONAL EDUCATION METHODS AND SIMULATORS BASED EDUCATION AT THE ACUTE CARE ENVIRONMENT: AN OVERVIEW

Cuciuc V., Kraizel M.

*Academic adviser:* Cernit V., M.D., Turchin R., M.D., University Assistant, State Medical and Pharmaceutical University “Nicolae Testemițanu”, Chisinau, Republic of Moldova

**Introduction:** The usage of medical simulation had been already used as an educational tool at the time of ancient cultures, in the form of animals or human cadavers. As the technology had been developing through the years, a more accurate methods of education were developed at the form of computerized manikins that are able to imitate acute care emergency scenarios as close to the reality as it can be considering nowadays technology limitations. Never the less now a days the usage of simulation based education is implemented worldwide at every medical domain, starting with simple procedures like insertion of central line to performing endoscopies.

At the acute care setup there is a demand for fast and accurate decision making and to perform life saving procedures as fast as possible like endotracheal tube insertion, Cardio Pulmonary Resuscitation and tracheostomy, etc.

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

Cernat M., Craciun I., Zastavnitchi Gh., Mishin I.

*Academic adviser:* Ghidirim Gheorghe, M.D., Ph.D., Professor, Academician, State Medical and Pharmaceutical University "Nicolae Testemitanu", Chisinau, Republic of Moldova

**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  $34.7 \pm 2.1$  h.