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Multistage surgery in treatment of patients in a critical condition.
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117 critical patient treatment analysis showed that surgery divided into stages, improves treatment outcomes. After a short, preoperative preparation, the first stage of the process is removal of the most life-threatening abnormal area, and the next stage is done after survival from critical situation. Timely removal of the most life-threatening abnormal area promotes to critical timely recovery from critical condition. Division into stages aims to reduce operating aggression, through minimum interference.

Key words: critical, surgery, minimally invasive, shock.

Introduction: Critical conditions are often associated with pathologies of surgical profile that require surgical treatment. Due to the critical condition, mostly it is difficult to establish the exact time of the operation and to determine the volume of surgery (Z.Kheladze 2007). Unfortunately, at present there is no common approach to defining the operational tactics. The majority of the authors consider surgery after survival of patients from shock condition, as operating aggression increases the risk of death. Some of the authors believe that it is appropriate to carry out an operation against the background of the critical situation that will help to reduce the time to survive from critical condition (S.Didia and other 3013, 2014). In our opinion, in a critical period, operating aggression should be reduced to a minimum. This is possible through division of operation into stages. In most cases, the critical situation, which requires surgery, is presented in the form of various shock. Among the most common is endotoxic shock. In the first stage, they do removal of abnormal area and the next step is done after the shock elimination.

Materials and Methods. Treatment analysis of 117 critical presents have been provided, who underwent surgery divided into different stages: by general surgeon, a neurosurgeon, traumatologist, urologist, otolaryngologist. Including: general surgery profile - 71 surgery. Neurosurgical - 5, Urology - 26. Traumatic - 8. ENT = 7

Table N1. Patient review by age and sex.

Age	Total	Man	Woman	Died	Recovered
<60	24-20,5%	14-11,9%	10-8,5%	0	24-20,5%
60-70	42-35,8%	30-25,6%	12-10,2%	2-1,7% (4,7)	40-39,1%
70-80	40-34,1%	26-22,2%	14-11,9%	1-0,5% (2,5)	39-33,3%
80>	11-9,4%	7-5,9%	4-3,4%	3-2,5% (27)	8-6,8%
Total	117-100%	77-65,8%	40-34,1%	6-5,1%	111-94,9%

The Table 1 contains the characterization of patients according to the age and gender. Among 117 patients, 77 are men and 40 women. 24 patients were up to 60 years, 42 patients were up to 70 years. 40 patients up to 80 years and 11 patients over 80 years. None of patients died up to 60 years. 2 patients up to 70 years, died. This equaled to 4.7%. 1 patient died up to 80 years, equaled to 2.5%. Over 80 years died 3 patients died, equal to 27%. Total 6 patients died. No patient died during surgery. Main reason of death was heart failure. 111 patients have recovered.

Table N.2. Review of patients' by age and the type of shock

Age	Endotoxic shock	Septic shock	Trama shock	Post-hemorrhagic shock	Coma
<60	18-11,9%	1-0,8%	2-1,7%	2-1,7%	1-0,8%
60-70	35-29,9%	0	1-0,8%	4-3,4%	2-1,7%
70-80	32-27,3%	1-0,8%	3-2,5%	2-1,7%	2-1,7%
>80	8-6,8%	0	2-1,7%	1-0,8%	0
Total	93-79%	2-1,7%	8-6,8%	9-7,6%	5-4,2%

The Table 2 contains description of patients by causing reasons of critical condition. In 80% of the cases, the critical condition is caused for endotoxic shock, which is primarily caused by diabetes. The Table shows that such patients were up to 60 years of age -11.9%. 29.9% - up to 70 years. 27,3% - up to 80 years and 6.8% over 80 years. Total 79% comes for endotoxic shock. In addition to the main disease, many patients have the critical underlying conditions: coronary artery disease, hypertension, atherosclerosis in general, pneumonia, anemia. In the clinic patients are treated standard treatment considering related diseases. Soon correction to anemia is being started, water and electrolyte balance is filled up, antibiotic therapy, sedation, etc.

Table N 3. Anesthesia and surgery types.

Anesthesia type	Abscess drainage	Amputation of limbs.	Epicystitis, neprostoma	Ventriculostomy	Skeleton stretch, swapping
Local	6-5,1%	8-6,8%	24-20,5%	0	15-12,8%
Vein	0	6-5,1%	0	0	0
Spinal	0	47-40,%	0	0	0
General	0	4-3,4%	2-1,7%	5-4,2%	0
Total	6-5,1%	65-55,5%	26-22,2%	5-4,2%	15-12,8%

The Table N3 contains the types of anesthesia and surgery. According to the operational strategy, patients were divided into 2 groups: Group 1, 68 patients underwent surgical operation-stage divided, during first 2-3 hours on a shock background. Group 2 of 49 patients - radical surgery intervention underwent after the shock elimination. Material analyzes showed that among 6 died patients, 1 was from Group 1, which amounted to 1.4%. 5 patients from Group 2, amounted to 1.2%. 4 patients died from endotoxic shock after amputation. 1 patient died after radical resection of a brain tumor. 1 patient died of heart failure, bladder polyps, who were treated epicystitis, polypectomy, in an open manner, due to bladder swapping. Post-hemorrhagic shock was revealed in 9 patients, in 2 cases, the bleeding cause was a stomach ulcer. A bleeding ulcer was sewed. In 7 cases of the cause of post-hemorrhagic shock was bleeding from the nose on the background hypertension – swaps were put in the front and back of the nasal cavity. To the patients with bone fracture, at the first stage was treated skeletal stretching and fixation. In the cases of brain aneurysm and brain tumor ventriculostomy was treated in the first stage. Critically ill patients, with prostate adenoma, were receiving epicystitis stomia, by trocar method, due to acute urinary suffocate. 1 patient, with urosepsis, was treated transcutaneous nephrostomia. 1 patient diagnosed with the endotoxic shock, heart failure and cholecystitis stones, was treated transcutaneous cholecystectomy.

Results and Discussion:Material analyzes showed that it is expedient to treat critical patients with minimally invasive, body saving, drainage, and laparoscopic operations, which will reduce the toxic effects of anesthesia and operating aggression. For example: transcutaneous stomas, Percutaneous tracheostomia, which takes 3 minutes, etc. Patients were treated a limb amputation, both

radically, and in stage division, which included removal of intoxication area, left open the stump. In critical patients, preoperative preparation time reduction improves the diseases outcome. This is supported by quickly get rid of intoxication area, properly selection of anesthesia methods, reduction of the volume of surgical intervention and reduction of the duration of the operation. This was made possible by the operation division into stages. After the amputation, to leave the stump open, reduces infectious complications. Post-operative recovery period and the patient stay in the hospital has been reduced. As for the second group of patients who received preoperative preparation for a long time, especially in elderly patients, real improvement was not achieved.

Conclusion: Treatment analysis of 117 critical patient showed that the surgery divided into stages, improves treatment outcomes. After a short, preoperative preparation, at the first stage of the process, the most life-threatening abnormal area is removed, and the next stage is done after survival from critical situation. On time removal of abnormal area supports survival from critical condition in a short period of time. Stage division aims to reduce operating aggression, through minimum interference.

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**მრავალეტაპიანი ქირურგიული ოპერაციები კრიტიკულ მდგომარეობაში
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მოტანილია კრიტიკულ მდგომარეობაში მყოფ პაციენტებში ჩატარებული 117 ოპერაციის შედეგები. მითითებულია ამ კონტიგენტის ავადმყოფებში ქირურგიული ოპერაციების ეტაპობრივად ჩატარების აუცილებლობის შესახებ. ამ შემთხვევაში პირველ ეტაპზე ხორციელდება ოპერაციის ის ფრაგმენტი, რომელიც სიცოცხლისათვის საშიში მდგომარეობას ქმნის, ოპერაციის დამთავრება კი შემდეგ ეტაპებზე ხდება, ეს ხელს უწყობს ოპერაციული ტრავმის შემცირებას და უკეთესი შედეგების მიღებას.