

Distinctives of medical assistance for the old-aged critical patients.**Kheladze Z., Lobjanidze L., Kheladze Zv.****The Critical Care Medicine Institute. Tbilisi. Georgia.**

In The Critical Care Medicine Institute the number of old-aged critical patients during last three years markedly increased. Only in 2000-2009 years were hospitalized 152 critical patients about 81 - 101 years of age (on average – 89,6 y.). The treatment of one patient on average costs 1678,5 USD. The stroke was most often diagnosed and among that a share of ischemic stroke was dominated. Patients underwent State standard treatment including lung ventilation and in most cases progenitor precursors' committing therapy (Zv.Kheladze at all. „New usage of electro impulses generator”. 2008.07.01 #4857,”. Zv.Khelade at all. „New usage of Plasma flow producer 2008.06.26 #4825, Z.Kheladze, Zv.Kheladze „New usage of Nitroglycerin”. 2008.07.11 # P4858). Common mortality rate was about 48%, at stroke it was around 49,4% and especially high indexes were at shocks - 30-80%. Mortality was lowest during hypovolemic shock. In old-aged critical patients' group “ventilator adjusting syndrome” was typical. Medicines optimal doses selection, associated diseases' variety and other peculiarities were also important. The analysis shows the efficiency of the intensive care in an old-aged critical patients.

Key words: old-aged, critical patients, treatment.

Actuality

In The Critical Care Medicine Institute a certain part of hospital cases are represented by the very old-aged patients which number from year to year have been increased. The program treatment of these critical patients has not been learnt yet, so, we investigate the features of the medical assistance for critical senium.

Material and methods

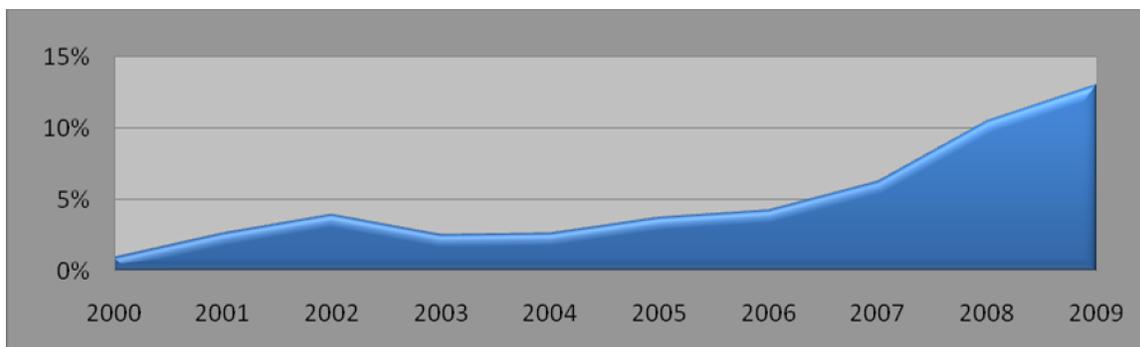
In The Critical Care Medicine Institute there were studied case reports of 152 senile critical patients at the age of 81-101, on average 89,6 years. 92 patients are women and 60 are men. The list of 152 hospital cases were distributed by final diagnosis as follows: there were 85 cases of the stroke equal 55,9% of total and among them there were 69% cases of ischemic stroke and 31% of hemorrhagic stroke; hemorrhagic shock – 6,6%, hypovolemic shock- 5,2%, bilateral bronchopneumonia – 5,2%, endotoxic shock – 3,2%, post-reanimation disease - 3,2%, cardiogenic shock–3,2%, hyperglycemic coma – 2,6%, pulmonary edema – 2%, brain injury – 1,3%, septic shock – 1,3%, others – 8,5%, as polytrauma, spinal injury, drug intoxication, gastro-duodenal bleeding, lung cancer, arteriosclerosis obliterans, incarcerated hernia, aspiration syndrome. Clear majority had concomitant arterial hypertension, coronary heart disease, chronic heart failure, heavy aorta atherosclerosis, diabetes mellitus, bronchial asthma, chronic pneumonia, Parkinson's disease etc..

All critical senium underwent baseline clinical examination, routine laboratory multiphasic testing and State standard treatment (1) included respiratory therapy realized as moderate hyperventilation pattern at that acid-base balance markers were supervised and strictly corrected. In most cases adrenoreactive intravenous medications infusion should be used, as well as water exchange and electrolyte supporting, antibacterial therapy, antiedematous glycerin about 1 mg/kg/24hr, parenteral and enteral feeding about 28 - 45 Kcal/Kg /per 24 hr and original progenitor precursors' committing therapy {4,5,6} .

Results and discussion.

During the last three years the number of the old-aged critical patients has been increased.

Fig 1. Admission per year.



Patient-days total number comprises 536, on average 3,5 patient-days for each patient. Total cost for treatment is 255 136 USD and one patient-day cost is 1678,5 USD.

The process of “making the population old” is current in the world (7.8.9.), so, the number of the people being over 80 is increasing. This increases the requirements towards the traditional health care systems, because the old people are often ill, as a result of which the number of the people who are in need of care increases. In the USA 1 patient-day in the critical care medicine on average costs 5000 USD and mean hospital charges are 34.738 USD.

The stroke was found in 55,9% of total cases, as ischemic insult in 69 % and as hemorrhagic insult in 31%. Complications occurred as purulent tracheobronchitis and bilateral bronchopneumonia, brain edema, cardiac rhythm and conduction system disturbances, pulmonary edema, acute cardio-vascular and respiratory insufficiency, so, in most cases the respiratory therapy was realized.

Total mortality composed 48% that is equal to 73 cases. By diseases mortality distributed in the following way:

- 1/stroke – 49,4%: ischemic insult – 23%, hemorrhagic insult – 77%;
- 2/hemorrhagic shock – 70%;
- 3/hypovolemic shock – 25%;
- 4/ bilateral bronchopneumonia – 37,5%;
- 5/ endotoxic shock – 80%;
- 6/ post-reanimation disease – 67%;
- 7/ cardiogenic shock – 50%;
- 8/ hyperglycemic coma – 50%;
- 9/ pulmonary edema – 33%;

10/ septic shock – 50%.

Fig.2. Mortality by disease.

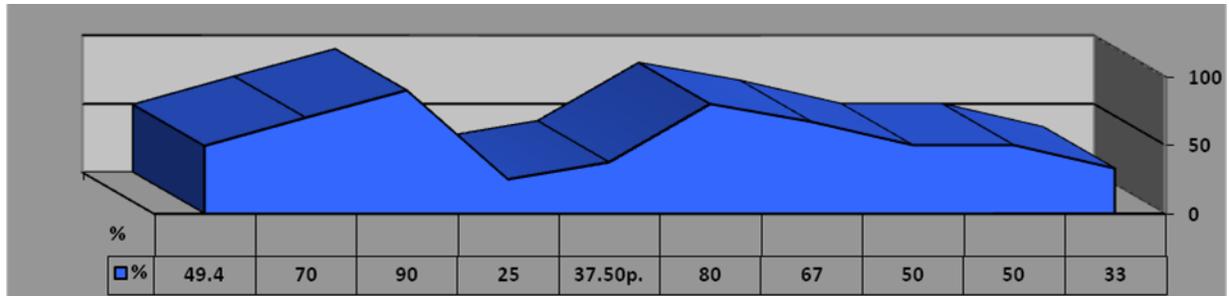
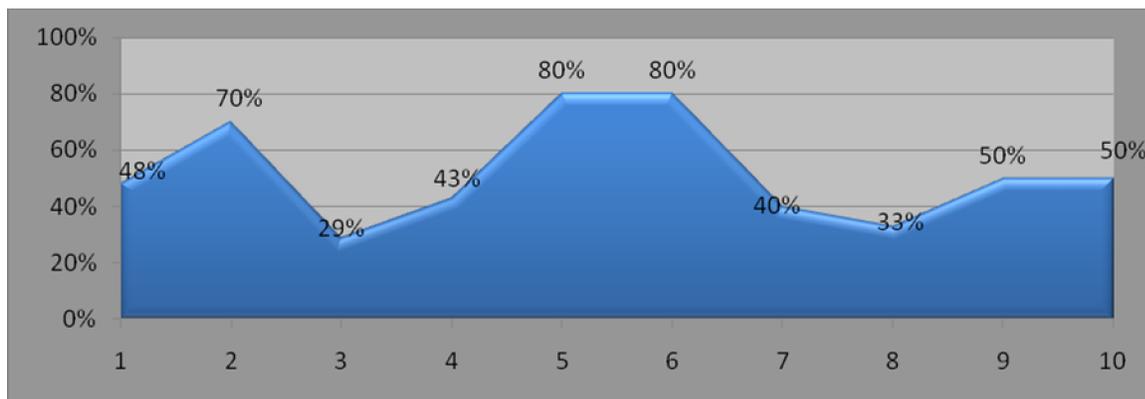


Fig.3. Mortality per year.



As it is seen, together with the increasing of the number of the senile critical patients the mortality rate has also been risen. Mortality rate at the hemorrhagic insult is over the ischemic insult. It is remarkable that the most long-lived patient has been admitted to the hospital with hemorrhagic insult was about 99 years old man. The most long-lived patient among women with bilateral bronchopneumonia treated was 101 year old. After long-term respiratory therapy she was discharged from the clinic in satisfactory condition (Fig.4.).



Fig.4. 101 year old patient before discharging.

The old-aged patients in the critical care medicine clinics are characterized with certain peculiarities (2.3.). Clear majority remain unconscious in spite of their critical condition. This is caused by extreme lability of the brain function. In old-aged patients' group the etiology of the central nervous system injury very often was not as deep hypoxia, as comparatively inconsiderable discirculatory disorder or other reason. So, identification of the diverse associated diseases and multifarious but not enough differentiated symptoms are also important as they often dissemble disease pattern and embarrass diagnosis by exclusion. On the background of the comparatively normal functioning it is frequent the disturbances of the organs activity. The ability of fighting against infection and intensity of reparation process are weak, which are revealed in complications such as purulent tracheobronchitis, bilateral bronchopneumonia and bed sore.

Medicines optimal dose selection is the basic curative problem. It is very important that the process of treatment be provided with the medicines of minimal nomination. The utmost care is necessary while using simultaneously several medicines. The difficulties were emerging while weaning the patients' from lung ventilation: while transferring to spontaneous breathing they were feeling considerable discomfort and were requiring the restoration of the assistant respiration, the accuracy of that were verified by blood gases and other laboratory tests. While using lung ventilation and other methods of treatment, the strategic tactic was not ordering gases and other data in the blood on an ideal level, but maintaining up to the index close to them. It should be noted that often aspiration for such ideal ordering was not giving positive results during the treatment process. Progenitor precursors' committing was going on during long-lasting period, though it was complicated reaching the same results observed with mature age patients.

Conclusion

During the last years the number of patients being over 80 has been increased in The Critical Care Medicine Institute. In spite of modern treatment mortality is still rather high, that explained by the age, heavy associated diseases and belated hospitalization at decompensation, when the positive results of the treatment is difficult to achieve. Data analysis shows that the critical care medicine service is extremely effective in an old-aged patients. In comparison with the mature age critical patients' treatment, it is characterized with certain peculiarities that should be taken into account in each concrete case. Also it becomes important the necessity of deeply studying these issues.

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მოხუცთა მკურნალობის თავისებურებები კრიტიკულ მედიცინაში.

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კრიტიკული მედიცინის ინსტიტუტი. თბილისი. საქართველო.

საქართველოს კრიტიკული მედიცინის ინსტიტუტში 2000 – 2009 წლებში შემოსულია 81-დან 101 წლამდე ასაკის (საშუალო ასაკი – 89,6 წელი) 152 პაციენტი. საგულისხმოა, რომ ბოლო სამი წლის განმავლობაში ამ ასაკის პაციენტთა რაოდენობამ საგრძნობლად იმატა. ერთი პაციენტის მკურნალობის საშუალო ღირებულებამ შეადგინა 1678,5 USD. ყველაზე ხშირად დაისვა თავის ტვინში სისხლის მიმოქცევის მწვავე მოშლის დიაგნოზი; აქედან ჭარბობდა იშემიური ინსულტის წილი. პაციენტები იმყოფებოდნენ ფილტვების ხელოვნურ ვენტილაციაზე და მათ უტარდებოდათ ინტენსიური თერაპიის სხვა ღონისძიებები, მათ შორის ხშირ შემთხვევაში პროგნოზული პრეკურსორების კომიტირების პროცესის მართვა შესაბამისი პატენტების (ზ.ხელაძე და თანაავტ., პატენტი №4857; ზ.ხელაძე და თანაავტ., პატენტი №4825; ზ.ხელაძე და ზ.ხელაძე პატენტი № 4858) მიხედვით. საერთო ლეტალობამ შეადგინა 48%, ლეტალობის განსაკუთრებით მაღალი მაჩვენებელი აღინიშნა სხვადასხვა სახის შოკის (30-80%), და თავის ტვინში სისხლის მიმოქცევის მწვავე მოშლის (49,4%) დროს. ლეტალობა ყველაზე დაბალი იყო ჰიპოვოლემიური შოკის დროს. ხაზგასმულია, რომ მოხუცთა ასაკში კრიტიკულ ავადმყოფთა მკურნალობის თავისებურებას წარმოადგენს ე.წ. "აპარატთან ადაპტაციის სინდრომი", რომელიც გამოიხატება ხელოვნური სუნთქვის პროცესისადმი პაციენტის კომფორტულ დამოკიდებულებაში, რაც მნიშვნელოვნად აძნელებს ამ ავადმყოფთა სპონტანურ სუნთქვაზე გადაყვანას. ასევე მნიშვნელოვანია წამლების ოპტიმალური დოზის განსაზღვრის საკითხი, თანმხლები დავადებების სიმრავლე და სხვა თავისებურებანი. გამოტანილია დასკვნა კრიტიკული მედიცინის სერვისის მოხუცთა ასაკში ეფექტურობის და ამ საკითხის უფრო ღრმად შესწავლის აუცილებლობის შესახებ.