Z. kheladze, Zv. Kheladze

The problems of critical care medicine.

(Critical Care Medicine Institute, Tbilisi, Georgia)

Here is given explanation of the critical care medicine and critical condition. In addition to this, here are represented peculiarities of critical care medicine and realized reasons, which guided creating critical care medicine as an independent specialty. Here are discussed models of critical care medicine service. Also here is mentioned cheap service of critical care medicine service is Georgia and easiness to control it. The last one is recommended for developing countries. Usage of this is recommended also at the time of war and catastrophes. It is optimal to be residency of 3 years in critical care medicine. We have argued advisability for development subspecialties of children and old people in critical care medicine.

Key words: children and old age, subspecialty, critical care medicine.

Intraductuin: critical care medicine is a science that studies critical condition. More precisely it studies reasons of generation of a critical condition and ways of it's development, creates and used in practice methods and means of prevention, treatment and diagnose critical conditions. Critical condition is a dangerous form of being. This is a form of damaging an human organism that need urgent medical interfere and without it this condition will ends up with death in a small period of time. The main characteristic sign that has critical care medicine is abolish of respiratory, blood circulation, consciousness and organism's other functions. On the beginning stage of critical condition, it can only be related with one or several organs but lately the whole organism is involved in this process and we have a picture of polyorganic failure. From this viewpoint in the process of critical condition we can distinguish stages of one organ's failure, polyorganic failure and terminal one.

The critical care medicine, first of all, is a specialty of hospital and step by step it retains a leading position. Moreover, 20-30 % of patients have the profile of critical care medicine. But the majority of critical conditions will be outside of hospital environment. From this point of view, we can mark pre-hospital period. Sooner we start to use critical care medicine service in pre-hospital sphere the better results await in order to liquidate critical conditions. These outcomes will be more visible is pre-hospital service if short-termed and a patient is involved in hospital sphere soon. This service betokens a medical staff equipped with special diagnosing-treatment devices. The peculiarity of critical care medicine is it's difficulty of technology and it is one of the expensive medical spheres. In addition, it is an aggressive technology which unwanted revelations are directed to not only a patient but medical personal also. Yet, the critical care medicine service is marked by taking care of a patient apart from his treatment. But it is not a one and only reason that conditioned development of critical care medicine as an independent specialty: at the time of critical conditions patient has pathological changes that are associated with critical condition only. In order to discover and treat these processes a special knowledge is must.

This knowledge includes special studying process in order to make an independent decision at least period of 3 years. The misunderstanding is that in other countries this period is from 6 months to a

year and a possibility to gain this knowledge after institute or university and not after receiving knowledge in other medical spheres as it is in other countries.

The first "doctor" of critical care medicine was Christ that was expressed by revivification of Lazare but the critical care medicine became as a including part of practical medicine in 50ies of century as the way of "mechanic student". It should be noted that critical care medicine doctors of the first generation were anesthesiologists. This fact was conditioned by the situation that anesthesiologists were able to conduct so difficult activities such APV, intensive therapy and so on. Consequently these doctors were more audible in this direction. This act of marriage that was a progress in those days, now is an anachronism. The fact is that one "mortal" doctor's brain is nor able to hold such huge information that is accumulated in both specialties. Moreover, if we discussed anesthesiology and critical care medicine as a one specialty as it is accepted in many countries will be an ineffectual factor. this would be clear if we consider that anesthesiology studies pain and critical care medicine-other different purposes and tasks. It should be noted that in order to implement both specialties it is necessary to have different psychological type. Anesthesiologists should be more pragmatic person and critical care medicine should be more romantic one. Georgia is a country where critical care medicine is an independent science for about 20 years and this fact is an evidence that doctors which are against of differentiation of critical care medicine and anesthesiology, are ones who did not success in one of them and this distinguish reduced their work area and salary too

Apart from distinguishing, critical care medicine has a problem is name, because maybe it should be more suitable is it is called "critical care medicine" or "intensive care medicine" but it would be better is we prefer "critical medicine". It is important that discuss of this term is suitable to be related with "reanimatology" in spite of the fact that in classic understanding critical medicine is more spread and contains "reanimatology" too that studies terminal conditions neighbored to death.

Critical care medicine also need to be organized. Nowadays there are developed two model of this service: multi-discipline and mono-discipline. The case is that critical care medicine doctor makes a decisions independently, namely, APV, control of blood circulation, parenteral and enteral nutrition, therapy against infection, and other treatment activities such magisterial blood-tube catheterization, tracheal intubation, tracheotomy, puncture of pleural cavity, plasmapheresis and so on apart from other surgical operations. In other cases, critical care doctor has a post of coordinator of a treatment process. 20 year model of Georgian critical care medicine service is an example that this model is cheaper and easy to manage. This model is better to be probed in countries with limited resources where live the majority of population. This model is also suitable during wars and catastrophes when limited resources is very important. If we consider that treatment results in expensive clinics and such clinics are the same, it would be bad for developed countries too.

Critical care medicine is a very difficult technology and it requires intellectual provide, psychological and physical resources. This is one of the complex activity carried out by a human. Despite young age, we can distinguish several directions of critical care medicine according to diseases of a certain organs of organ systems. The first step was separation of "cardiologic" and "neurosurgical" profiles from critical care medicine. Moreover, in recent years we can see a tendencies of creating certain services according to diseases. We means creating services of insult, trauma, sepsis and services of similar meaning. As a viewpoint of organization this idea is positive because acute patients in one clinic is difficult to control and treat and it makes process simple. But these positive outcomes are possible in general profile clinics of critical care medicine. This strange position must not be surprising as it seems. It is right, that at the beginning critical care medicine was generated in order to take care of critical patients but maintaining of it's positions was conditioned by different reasons. Critical conditions revealed to be the one, when in human organism there are

changes which are characteristic only critical condition and separation of critical care medicine departments is not a good idea. The more perspective way is to place patients of these profile in the critical care medicine clinics in different segments.
But from this direction, comparatively more demands are represented about old aged patients and children critical care medicine. The question is that ongoing processes in both category of age is very distinct and this difference is expressed by clinical picture and treatment peculiarities. Children's and old peoples' organism reveals more wide reaction on certain agent than local, the same picture is despite of the way of pathological agent : traumatic, inflectional, toxic or others. In this contingent of age there is a rapid development of condition which has a way of various changes and recognizing of them is very significant in order to reach a positive result. The important peculiarities are also activation of medicaments, their doses, side effect. We also must consider controlled respiration, recovery of blood circulation, enteral and parenteral nutrition, therapy against infection, and other treatment activities. Reasoning from this, differentiation of critical care medicine service seems to be actual.
Conclusion: in critical care medicine there are some problems which should be resolved in future: development as an independent specialties, reach consensus in selecting one name, increase studying in residency for 3 years, transfer on mono-discipline method of control, creation on children and aged peoples' critical care medicine as an independent specialties.

ზ.ხელაძე, ზვ.ხელაძე
კრიტიკული მედიცინის პრობლემები
(კრიტიკული მედიცინის ინსტიტუტი, თბილისი, საქართველო)

მოყვანილია კრიტიკული მედიცინის და კრიტიკულ მდგომარეობათა განმარტებები. ჩამოთვლილია კრიტიკული მედიცინის თავისებურებები და გაანალიზებულია ის მიზეზები,რომლებმაც კრიტიკული მედიცინის დამოუკიდებელ სპეციალობად ჩამოყალიბება განაპირობეს. განხილულია კრიტიკული მედიცინის სამსახურის მოდელები და მითითებულია საქართველოს კრიტიკული მედიცინის სამსახურში მოქმედი მოდელის სიიაფე და მართვის სიადვილე. ეს მოდელი რეკომენდებულია განვითარებადი ქვეყნებისათვის. მისი გამოყენება მოწოდებულია აგრეთვე ომებისა და კატასტროფების დროს. აუცილებლობის სახით არის მიჩნეული კრიტიკული მედიცინაში რეზიდენტურის არსებობა, რომლის ხანგრძლივობა სასურველია სამ წლიანი იყოს. დასაბუთებულია კრიტიკულ მედიცინაში ბავშვთა და მოხუცთა ასაკის კრიტიკული მედიცინის სუბსპეციალობების შემოღების აუცილებლობა.