Phenomenon of „Sclerosis" of T-limphocytes in the terminal condition.

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Of the 73 patients with terminal condition (agony, clinical death and early post reanimation period) to moestigate immune and toxic status. experimental part had been carried out on drown, mongrel, intact dogs, moderling of clinical death was actived by massive blood letting from femoral artery. the result of the study demonstrate that terminal conditions are associated with secondery immunodeficiency syndromes with include cellular and humoral components of immune response. the results of the research demonstrate thet the toxins themselves possess immunosupressive effect and promote suppression of T- and B- lymphocytes function. That are associated with rosette producing ability, mitogenic activity, also, with revealing of suppressive, helper and immune ,,memory" effect.

Immune ,,memory" suppression indeed immunodeficiency and endogenic toxemia associated with terminal condition. Transitory nature of this immunodeficiency and toxemia during ,,stable resuscitation" has been registered.

Key words: T-lymphocytes, Terminal care condition, immune status, Toxic status, agony, clinical death, early post reanimation periods, Resuscitation, Experimental research, ,,Hela" culture, ,,anamnestic" type immune response.

Introduction. The immune and toxic status changes peculiarities establishment has it determined meaning to apprehend terminal conditions mechanisms. Hereby, such study gives opportunity to create alternative methods of prophylaxis, diagnosis and treatment.

Methods and Materials. The study group consisted of 73 (100%) patients in terminal condition (agony, clinical death, early postreanimation period); 69.0% of the patients wen adults, 31.0% were middle-aged and old. Terminal condition of these patients was developed as a result of trauma(14.8%), sepsis (13.6%) peritonitis (11.0%) disturbed cerebral cirkulacion (10.3%), poisoning(10.3%), bronchial asthma status (8.7%), bleedind(7.4%), tetanus (7.1%), acute renal insufficiency (7.1%), myocardial infrarction (5.2%), acute hepatic insufficiency (4.5%). It is worth mentioning that 25.2% of the patients suffered from coronary disease, 20.6%- hypertensive disease, 12,6%- chronic bronchitis and chronic pneumonia, 9.6%- diabetes mellitus, 44.8%- with other allied disease. Prior to the development of terminal condition every patient reported more or less apparent respiratory distress syndrome, inner thrombo-hemorrhagic syndrome, syndrome of endogenic toxemia, small systolic volume heart phenomenon and other pathologic condition allied with terminal stage.

Resuscitation of these patients was carried out by traditional methods like automatic breathing, closed-chest cardiac massage, electrodefibrilation, infusion therapy etc. In 49.4% of cases these measures were carried out during agony and in 50.6%- during clinical death (the duration of the latter was no more then 5 min.). Resuscitated without significant neurological disorders, 1.9% reported serious neurologic changes.

Experimental part of the research had been carried out on drown, mongrel, intact dogs; modeling of clinical death was achieved by massive bloodletting from femoral artery. Bloodletting duration equaled 5-10 min. in 5 animals, and after development of clinical death and lasted for 5-15 min. 4 animals were saved in group 1 and 3-in group 2. Significant neurological disorders were noted in 2 dogs of group 2.

In order to investigate the immunologic status, pure lymphocyte culture was educed the peripheral blood of researched objects in Ficol-Verographine one-staged gradients (final weight of which was 1.079 gr/cm3). Blood centrifugation lasted 15 min with 800 g acceleration. Purity of obtained lymphocyte culture was 90-96%. The number of T- and B- lymphocytes (which from e- and EAC-rosettes) was detrmined using lamb erythrocytes with the help of „Heto" mononuclear sera mitogenic activity of t-lymphocytes wos determained by administration of radioactive H3 –Tymidin into phytohemaglutinine (FGA) stimulated cells. Suppressive activity of T –lymphocytes was studed in one – directione initial mixed culture where the role of signal – cells was perfomed by FGA – stimulated cells of a researched individual that were previously treated with mytomicin – C whereas cells of the respondent were treated with donor lymphocytes. Study of anamnestic immune response of T- lymphocytes was perfomed in lymphocyte one –direction secondary mixed culture; respondent cells were iymphocytes of researched individual snd signal cells were donor lymphocytes treated with mytomicin- C. They were incubated for 48 houres together with lymphocytes the same individual as well as for 144 houres with the same donor lymphocyte culture that was previously treated with mytomicin – C ufter incubation. A,M and G serum immunoglobulins were defined by the method of radial immunodiffusion on the gel. To study endogenic toxemia intensivity was appied the method of white mice biotesting with blood plasma; determination of blood plasma concentration of moderate molecules and immune complexes (1,5,6).

Results and Discussion. The results of the research are demonstrated in tables.

Table 1 shows that patients in process of dying (agony) and during apparent death demonstrated severe deficiency of their E and EAC rosettes producing T and B-lymphocytes was statistically significant 9 572.8±19.1 cell/mm3 and 233.7±10.6 cell/mm3 accordingly). Number of OKT4 and OKT8 positive suppressive and helper cells (366.3±10.1 cell/mm3 and 178.2±7.5 cell/mm3 accordingly)also decreased.

At this time oppression of suppressive affect (25.1± 1.4%) of T-lymphocytes mytogenic activity (30.2±2.3%) as well as suppression of possibilities of anamnestic type immune response (25.1± 1.6%) became significant: concentration of A (127.8 ± 3.8mg%) and G (986.8±18.4mg%) immunoglobulins in patients blood serum was also decreased.

Table 3 demonstrates that in this period patients reported significant in crease of toxic indexes. In blood plasma of these patients increase of concentration of immune complexes (14.2±0.7mg%) and moderate weight molecules (0.499±0.02 conventional units) was statistically significant. Cytopathogenic effect of patients blood plasma in

„Hela" culture (36.6±1.4%) was also high (P<0.001) as well as the results of white mice biotesting(1.5±0.07 points).

Almost similar data were obtained by experimental research (Table 2 and Table4). Animals at the upper stage of apparent death demonstrated significant (P<0.02-0.001) decrease of number of T and B lymphocytes (441.5±42.4cell/mm3 and 111.4±11.7 cell/mm3). Suppressive effect (17.5±2.4%) of T-lymphocytes mytogenic activity (37.2±3.7%) as well as possibility of immune complexes (11.2±1.1mg%) and moderate weight molecules (0.422±0.06 conventional units) in their blood plasma was increased (P<0.001). Plasma of of the animals invaded more cells (38.6±2.6%,P<0.001) and during biotesting it killed much greater number of white mice (0.5±0.004 points P<0.001) than prior to experiment.

Table2. Immunologic Changes of Terminal Condition in Experiment.

№	Investi-gated Individuals	Statisti-cal Index	E-rossete cell/mm3	EAC-rossete cell/mm3	Mytoge-nic index%	Suppre-sion index%	Immune „memory" index%
1	Animals bifore bloodletting	X ±m n	903.2±41.4 10	242.7±25.5 10	67.7±4.4 10	34.5±4.4 10	65.5±3.2 10
2	During apparent death	X ±m n P	441.5±42.5 10 <0.001	111.4±17.7 10 <0.02	37.2±3.7 10 <0.001	17.7±2.4 10 <0.001	37.6±3.3 10 <0.001
3	In early postreanimation period	X ±m n P	323.9±23.0 7 <0.05	128±15.9 7 >0.05	33.9±2.6 7 >0.05	27.3±4.7 7 >0.05	36.9±6.1 7 >0.05

Table4. Peculiarities of Toxic Changes During Terminal Condition in Experiment.

№	Investigated Individuals	Statistical Index	Concentration of immunocomplex mg%	Moderate molecule concentration in points	Cytopathogenic effect in „hela" Culture (%)	Biotesting in points	E-rossette inhibition reaction index
1	During bloodleting	X ±m n	1.8±0.8 10	0.121±0.02 10	2.1±0.4 10	0.4±0.1 10	0.2±0.03 10
2	During apparent death	X ±m n P	11.2±0.7 10 <0.001	0.422±0.06 10 <0.001	38.6±2.6 10 <0.001	1.4±0.1 10 <0.001	0.5±0.04 10 <0.001
3	During postreanimation period	X ±m n P	10.9±1.8 7 >0.05	0.438±0.06 7 >0.05	39.3±4.7 7 >0.05	1.7±0.1 >0.05	0.5±0.07 7 >0.05

Table 1 shows that resuscitated patients in early post reanimation period demonstrated tendency of definite increase of immunodeficiency. Compared with previous resuscitating period (P<0.05-0.001) they demonstrated greater number of T and B immunocompetent cell (313.8±28.1/mm3 and 131.9±10.4 cell, accordingly); their mitogenic activity concentration of G class immunoglobulins in blood serum was also diminished (850.3±32.0 mg%).

Table 1. Immunologic Changes of Terminal Condition in Clinic.

№	Investi-gated Individuals	Statistical Index	E-rossete cell/mm3	EAC-rossete cell/mm3	OKT4 positive cell/mm3	OKT8 positive cell/mm3	Mytoge-nic index%	Suppre-sion index%	Immune „memory" index%	IgA mg%	IgM mg%	IgG mg%
1	Donors	X ±m n	1014.1±60.8 19	414.3±31.1 19	769.1±36.8 10	349.1±14.3 10	59.0±3.9 19	35.8±3.9 19	45.8±3.5 19	198.7±7.4 19	128.9±11.8 19	1187.0±30.4 19
2	Patients during agony and apparent death	X ±m n P	572.8±19.1 73 <0.001	233.7±10.6 73 <0.001	366±10.1 33 <0.001	178.2±7.5 33 <0.001	30.2±2.3 67 <0.001	25.1±1.4 65 <0.001	25.3±1.6 64 <0.001	127.8±3.8 64 <0.001	118.9±3.2 64 >0.05	986.3±18.4 6 <0.001
3	patients in early postreanimation period	X ±m n P	313.8±28.1 29 <0.001	131.9±10.4 29 <0.001	196.5±23.2 6 >0.05	199.7±25.2 6 >0.05	23.55±2.9 29 <0.01	12.7±2.2 21 <0.001	21.8±2.2 18 >0.05	107.2±8.3 18 >0.05	97.2±4.0 18 >0.05	850.3±32.0 1 <0.01
4	Patients after liquidation of critical condition	X ±m n P	710.9±82.6 8 <0.001	315.o±32.7 8 <0.001	570.5±81.3 5 <0.001	173.4±25.3 5 >0.05	40.2±3.6 8 >0.05	31.1±5.9 5 >0.05	40.1±6.3 5 <0.001	168.0±12.9 5 >0.05	96.0±7.5 5 >0.05	1303.0±57.9 5 <0.001

Table 3 demonstrates that, in this period resuscitated patients reporter significant extension of blood plasma toxic effect that revealed in increased number of destructive cells (43.0±1.3%) in „Hela" culture as well as in higher biotesting data (2.0±0.1 points) than in pre-resuscitation period. Results of similar research of experimental animals are given in Table 2 and 4. it is evident that in comparison with the data of clinical death, at this stage, animals demonstrated greatly diminished (P<0.05) number of T-lymphocytes (323.9±23.0 cell/mm3), though other immune and toxic parameters were not significantly (P<0.05) evident. After elimination of vitally dangerous condition most of the above mentioned indexes were more or less improved (P<0.05-0.001) pompared with terminal condition: number of T and B-lymphocytes increased (710.9±82.6 cell/mm3 and 315±32.7 cell, accordingly); revealing ability of T-lymphocyte mytogenic activity (40.2±3.6%) and suppressive effect (31.1±5.9%) became more intense; concentration of

G-class immunoglobulin also increased (1303.0±57.9 mg%). It is worth noting that these parameters mostly were much lower that those of healthy donor (Table1). Similar tendency was documented for toxic indexes of the same period-important decrease of immune commune complex concentration (6.8±1.3 mg%, P<0.01), diminished cytopatogenic effect in „Hela" culture (11.4± 2.0% P<0.001) and low indexes of white mice biotesting (0.6± 0.1 points P<0.001); though, compared with healthy donors these indexes were still greater (Table 3). These results and experimental animals investigation were worked out considering such factors as patient's age, allied diseases, reasons including terminal condition, duration of dying process and treatment results. In order to avoid figure abundance these data are not given in the present paper, although, it should be mentioned that changes of these parameters were more significant in senior and old patients, in the presence of allied diseases, terminal condition, infection (sepsis, peritonitis, tetanus) or alergic and auto immune component conditions (bronchial asthma status, severe renal or liver insufficiency) as well as with prolongation if dying process and unsuccessful resuscitation or lethal outcome of postreanimation period. Though, both immune and toxic indexes were not mostly statistically significant (P<0.05).

It should be emphasized that, prior to immune reaction to pure lymphocyte cultures of these donors and patients was added plasma of other donors or patients. Investigations revealed that donors´ plasma and plasma of the patients after liquidation of critical condition did not affect immune reactions in auto- or differ (P<0.05) from those of control reactions (pure cultures of same lymph without plasma). As is shown in Table 5 and 6 plasma of patients in agony, auto- or allogenic lymphocyte immune reaction; in most cases these changes were statistically significant (P<0.05-0.001).

Table3. Peculiarities of Toxic Changes During Terminal Condition in Clinic.

№	Investigated Individuals	Statistical Index	Concentration of immunocomplex mg%	Moderate molecule concentration in points	Cytopathogenic effect in „hela" Culture (%)	Biotesting in points	E-rossette inhibition reaction index
1	Healthy donors	X ±m n	2.0±0.4 19	0.109±0.07 16	2.8±0.4 16	0.25±0.07 16	0.2±0.01 16
2	Patients in period agony	X ±m n P	14.2±0.7 67 >0.05	0.499±0.02 39 >0.05	36.6±1.4 39 <0.001	1.5±0.07 39 <0.001	0.4±0.02 33 <0.001
3	patients in early postreanimation period	X ±m n P	16.8±1.5 18 >0.05	0.474±0.03 19 >0.05	43.0±1.3 19 <0.001	2.0±0.1 19 <0.001	0.4±0.02 29 >0.05
4	Patients after liquidation of critical condition	X ±m n P	6.8±1.3 5 <0.01	0.487±0.07 8 >0.05	11.4±2.0 8 <0.001	0.6±0.1 8 <0.001	0.03±0.01 8 <0.001

Table 5 shows that administration of oplasma of patients in agony or clinical death into pure lymphocyte cultures of donors and of patients being in the same condition or other patients in early postreanimation period and post critical condition induced significant decrease of their immune reaction indexes compared with the control indexes. In most cases these changes were statistically significant (P<0.05-0.001).

Table5. Immune reaction Indexes after Administration of Plasma of Patients in Agony or Clinical Death into Pure Lymphocyte Culture.

№	Lymphocyte Culture	Stati sti-cal data	E-rosse te cell/ mm3	EAC - rosse te cell/ mm3	OKT4 positive cell/mm 3	OKT8 positive cell/mm3	Mytoge-nic index%	Suppre-sion index%	„Immuno-memory" index%
1	Healthy Donors	X ±m n P	315.8±68.4 8 <0.001	126.4±32.1 8 <0.001	189.4±36.3 8 <0.001	128.8±33.1 8 <0.001	23.4±5.1 8 <0.001	11.1±2.0 7 <0.001	19.4±4.3 5 <0.001
2	Other Patients in agony and apparent death	X ±m n P	270.1±12.3 33 <0.001	150.1±9.1 33 <0.001	190.5±12.1 33 <0.001	106.0±5.3 33 <0.001	13.0±1.0 33 <0.001	14.8±1.0 33 <0.001	13.0±1.0 33 <0.001
3	early postreanimation period	X ±m n P	205.6±10.3 18 <0.001	102.4±10.6 18 <0.001	194.0±22.1 18 >0.05	101.6±15.7 18 >0.05	12.1±1.4 18 <0.01	4.6±1.0 13 <0.01	9.8±2.8 13 <0.05
4	Patients after liquidation of critical condition	X ±m n P	392.7±73.8 8 <0.001	194.3±34.7 5 <0.001	228.8±39.2 5 <0.001	103.8±30.6 5 <0.05	21.7±4.6 8 <0.001	8.6±1.8 5 >0.05	22.7±3.3 5 <0.001
5	Some patients in agony and apparent death	X ±m n P	275.2±14.1 33 <0.001	143.2±10.0 33 <0.001	193.6±12.1 33 <0.001	106.4±5.3 33 <0.001	13.2±1.0 33 <0.001	14.7±1.0 33 <0.001	12.8±1.0 33 <0.001

Similar results were obtained with plasma of patients in early postreanimation period (Table6) as well as with plasma of animals in clinical death (Table7), or in early postreanimation stage.

Table6. Immune reaction Indexes after Administration of Plasma of Patients in Early Postreanimation Period into Pure Lymphocyte Culture.

№	Lymphocyte Culture	Statisti-cal data	E-rossete cell/mm3	EAC-rossete cell/mm3	OKT4 positive cell/mm3	OKT8 positive cell/mm3	Mytoge-nic index%	Suppre-sion index%	,,Immuno-memory" index%
1	Donors	X ±m n	310.7±47.6 8	117.2±20.1 8	180.4±36.3 8	124.1±32.1 8	21.5±5.8 7	10.8±2.3 7	18.2±4.7 5
2	Other Patient in early postreanimation period	X ±m n P	190.4±10.4 18 <0.001	104.7±9.9 18 <0.05	197.7±20.4 18 <0.001	104.7±14.9 18 <0.001	12.3±1.5 18 <0.001	4.2±1.1 13 <0.01	8.8±1.4 13 <0.01
3	Patients in agony and apparent death	X ±m n P	270.1±12.3 33 <0.001	150.1±9.1 33 <0.001	194.1±12.1 33 <0.001	105.1±5.3 33 <0.001	12.7±1.3 33 <0.001	14.1±1.3 33 <0.001	12.3±1.3 33 <0.001
4	Some patients in agony and apparent death	X ±m n P	198.7±11.1 18 <0.001	101.5±10.6 18 <0.001	191.4±21.2 18 <0.001	103.7±15.0 18 <0.001	12.1±1.4 18 <0.001	4.1±1.1 13 <0.001	8.6±1.3 13 <0.001
5	Patients after liquidation of critical condition	X ±m n P	381.4±70.4 8 <0.001	198.1±35.2 5 <0.001	226.4±39.2 5 <0.001	103.4±30.6 5 <0.001	20.8±5.1 8 <0.001	8.8±1.8 5 <0.001	23.1±3.4 5 <0.001

Table7. Immune Reaction indexes after Adding Apparent Death Period Animals Plasma to Pure Lymphocyte Culture.

№	Lymphocyte Culture	Statisti-cal data	E-rossete cell/mm3	EAC-rossete cell/mm3	Mytoge-nic index%	Suppre-sion index%	Immune ,,memory" index%
1	bifore bloodletting	X ±m n P	349.8±69.8 6 <0.001	154.8±19.6 6 <0.02	30.7±2.8 6 <0.001	19.2±3.0 6 <0.01	9.5±2.7 6 <0.001
2	During apparent death	X ±m n P	276.0±35.5 6 <0.001	83.2±12.8 6 <0.05	30.3±6.0 6 <0.05	9.5±2.1 6 <0.05	10.0±2.8 6 <0.001
3	During early postreanimation period	X ±m n P	174.2±30.8 6 <0.001	63.2±14.2 6 <0.02	19.0±2.8 6 >0.001	12.0±2.5 6 >0.02	13.5±4.6 6 <0.02

Table8. Immune Reaction indexes after Adding Early Postreanimation Period Animals Plasma to Pure Lymphocyte Culture.

№	Lymphocyte Culture	Statisti-cal data	Number of E-rossete cell/mm3	Number of EAC-rossete cell/mm3	Mytoge-nic index%	Suppre-sion index%	Immune „memory" index%
1	bifore bloodletting	X ±m n P	35.8±69.8 6 <0.001	147.8±19.6 6 <0.02	30.51±2.8 6 <0.01	18.6±2.1 6 <0.001	9.7±2.7 6 <0.001
2	During apparent death	X ±m n P	244.3±35.5 6 <0.001	98.3±18.3 6 <0.05	28.0±6.0 6 <0.05	14.3±1.8 6 <0.05	8.0±1.8 6 <0.05
3	During early postreanimation period	X ±m n P	153.0±15.6 6 <0.001	59.2±11.5 6 <0.01	11.0±2.8 6 >0.001	10.2±1.8 6 >0.001	8.7±9.9 6 <0.001

E-rosette produsing 29 different reactions were made separately with plasma and pure lymphocyte cultures of 6 patients in clinical death and 6 patients with chronic diseases in remission stage.

It was observed that administration of terminal patients´ plasma into reaction area always induced significant suppression ($P<0.001$) of E-rosette produsing reaction; treatment of investigated individuals´ lymphocytes with auto or allogenic person plasma did not play a role, as well as plasma treatment of lamb erythrocytes-reaction markers and early middle or final administration of this plasma. On the basis of these data the method of endogenic toxemia activity determination was worked out: with lymphocytes of an investigated individual were carried out two parallel spontaneous E-rosette produsing reactions of pure culture (control) and with adding auto-plasma (experimental). Decreasing of rosette number during the latter accounts for the degree of toxemia. Comparative study of this and other endogenic toxemia diagnostic methods – (87.5-98%) demonstrated that this method was associated with clinical signs of endogenic toxemia, while accuracy of other method reached 60-85.0%, moreover, it was much simpler, 3-4 times cheaper and 1.5-72 times shorter than other methods.

The results of the study demonstrate that terminal conditions are associated with secondary immunodeficiency symptoms which include cellular and humoral components of immune response ; this process involves not only T- and B- immunocompetent lymphocyte populations, but , also, immunoregulative supressors and helper subpopulations. Agents this background, T- lymphocytes realization of anamnestic immune response. Human lymphocytes help to meet with multispectrum of antigens. The information about them is kept in lymphocyte immune memory. So that, in adults, majority of immune reactions are actually of secondary immune response type and necessary need cooperation of immune "memory" preserving components. This response

occurs much sooner and is much stronges and affective than initial immune response (7). Considering then above side we may suppose, that suppressing of immune ”memory” function and of immune response realization is one of the deciding factors accountings for the kind of andogenic toxemia in the group of patients terminal condition, that was noted during dying and resuscitation (3). This is vary important hence the informatoin about toxin antigenic structures must have been kept by this lymphocytes owing to their “endogenic” nature. This kind of immunodeficiency demonstration may be considered as one of the promoting factors of infactiuos complications (bronchopneumonia, sepsis, meningitis, encephalitis ect.), or auto immune or allergic components containing pathological conditions such as respiratory distress syndrome, brain cell edema and destinction, inner thrombohemorrhagic syndrome ect, the more so, they were found with various intensity in these patients in post reanimation period (2).

The results of the research demonstrate that these toxins themselves possess immunosuppressive effect and promote suppression of T- and B-lymphocytes functions that are associated with rosette producing ability, mitogenic activity, also, with revealing of suppressive, helper and immune “memory” effect. This is markedly expressed while studying the effect of plasma of the same patients on the development of immune reactions of patients in terminal condition. It is a common knowledge that this is “full” of those endogenic toxins during terminal condition (8).

Thus, terminal condition is characterized with a kind of “vicious circle” when the immune reaction suppression promotes endogenic toxemia and further development of the latter promotes immunodeficiency revealing process. The described facts were more or less intensively expressed in elderly and old patients; also with allied disease presence of prolonged dying in terminal condition that were developed against the background of infectious, allergic or autoimmune component. It is doubtless that terminal condition perspective is determined by early detection of this phenomenon and its treatment (4).

Resuscitation is commonly associated with restoration of circulation breathing, functioning of nervous system and other functions of a human organism. Results of the study demonstrated that, from this point of view, the immune system is an exception considering that these patients in early post reanimation demonstrated greater suppression of immune response; this may have been induced by intensifying toxemia. According to the results, in resuscitated patients, liquidation of life threatening condition and final positive outcome was able only in those ones who demonstrated tendency of elimination of endogenic toxemia and rehabilitation of immune response; those patients who did in post reanimation period demonstrated markedly apparent immunodeficiency and profound endogenic toxemia. Accordingly, it may be supposed, though resuscitation is mainly associated with restoration of circulation, functioning of breathing and central nervous system, and final successful outcome is not possible without restoration of immune response and, especially, immune “memory” and secondary immune response, i. e. Without elimination of endogenic toxemia. It goes without saying that prospects of treatment of patients in terminal condition. Theoretical basis of the proposed diagnostic method is the association of secondary immunodeficiency registered in terminal condition and of endogenic toxemia; practical realization of this method was possible by investigating terminal patient plasma suppression of inhibition intesivity of T-lymphocyte rosette- forming ability. The described method represents rather informative, simple, short-termed and cheap diagnostic means; application of this method determines

the degree of secondary immunodeficiency and toxemia association, it provides the possibility of calculating treatment efficiency and future prognosis.

Conclusion. Immune "memory" suppression induced immunodeficiency and endogenic toxemia associated with terminal condition. Transitory nature of this immunodeficiency and toxemia during "stable resuscitation" has been registered. Quite an effective diagnostic means of this phenomenon has been worked out and proposed for application in critical care units.

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(კრიტიკული მედიცინის ინსტიტუტი, სახელმწიფო სამედიცინო უნივერსიტიტის კრიტიკული მედიცინის დეპარტამენტი, თბილისი, საქართველო)

რეზიუმე:

შესწავლილია ტერმინალურ მდგომარეობაში მყოფი 72 ავადმყოფის იმუნური და ტოქსიური სტატუსი. ნანახია მეორადი იმუნოდეფიციტის სურათის ასოცირება ტერმინალურ მდგომარეობასთან. ეს უკანასკნელი ატარებდა ტრანზიტულ ხასიათს და ავლენდა აღდგენის ტენდენციას ტერმინალური მდგომარეობის ლიკვიდაციის შემდეგ. განსაკუთრებით მნიშვნელოვანი იყო T-ლიმფოციტების მიერ ანამნესტიური ტიპის იმუნური პასუხის განხორციელების „დავიწყება". გამოთქმულია მოსაზრება, რომ T-ლიმფოციტების ამგვარი „სკლეროზის„ განვითარებაში მნიშვნელოვან როლს ასრულებენ ტერმინალური მდგომარეობისას წარმოქმნილი ენდოტოქსინები.

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