

**Zv.Kheladze, Z.Kheladze, I.Strelnikovi (Tbilisi, Georgia)**

**Georgia presents Georgia-1 and Georgia-2 generation devises providing medical care during space-navigation**

**Abstract:**

During space flight the body of the cosmonauts are stressed simultaneously with multiple adverse factors radiation, high speed of the flight, gravity force, psychical and physical oversteering and other. There is no doubt that these factors leave fingerprint on the cosmonaut's organism and have effect on achieving mission goals perfectly, negative factor are more sharply outlined when the space flight have tight prolonged schedule.

**Key Words: Management, space medicine, "Georgia"**

**Introduction:**

It is important that during work in open space astronauts are under increased radiation influence by cause of all mentioned often have place working impairment activity, depression, fatigue, insomnia, decreasing of regeneration-reparation processes, reduce immune response, bone and muscle tissue mass reduction, psychological deviations and etc.

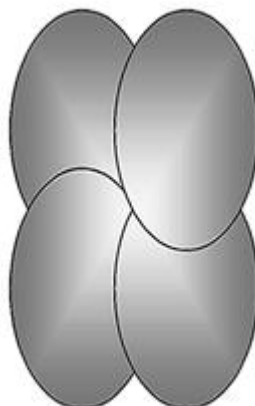
Critical condition has been chosen for testing and creation of systems that would increase working activity, correct immune disorders and activate regeneration processes by reduction of negative exposures.

Similarity of critical condition with human presence in space is that that human body is placed in undesirable, not adapted environment.

It is important that critically ill patients have more outlined decreasing of regeneration-reparation processes, reduced immune response than cosmonauts.

By our conducted researches we have found that critical patients have secondary immune-deficient that include T and B lymphocytes so if we could find ways to reduce these negative factors during critical condition it is clear that it will work on match more high level in space because of negative factors dose not present on that deep level in cosmonauts than in critically ill patients.

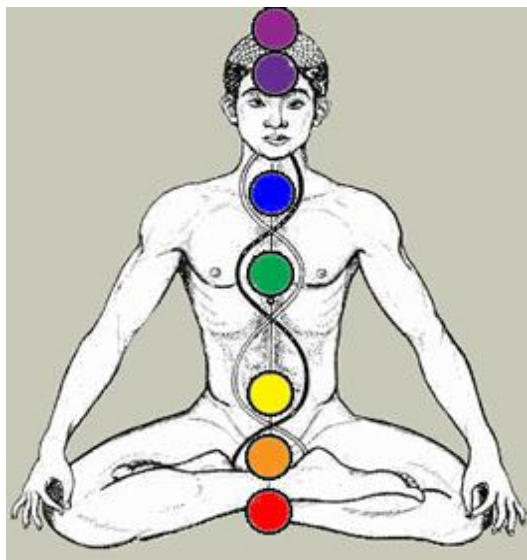
Next stage of research include study of morphology, biochemistry, immunology and other parameters of bone marrow of critically ill patients, research results showed that infusion of adrenaline and nitroglycerine in the bone marrow or intravenous infusion of nitroglycerine with processing bone marrow by using of electro impulses have activating effect on progenitor precursor committing process that by itself correct regeneration-reparation process during assisting immunodepression picture.



[http://cccmj.ge/Cdebi\\_1/20100303002355/20101127185041.htm](http://cccmj.ge/Cdebi_1/20100303002355/20101127185041.htm)

Results showed that immune-competent cell count increase after influence upper mentioned factors in Bone marrow as well as peripheral blood. research results testify that using of electro impulses for progenitor precursor committing activation should be outlined than other methods for its ease use, light lack of adverse effects that makes this method best for immune-competent cells and stem growth with less spending needs that other methods.

On the base of this researches was constructed “Georgia-1” and „Georgia-2” generation devises. Principal similarity of this devises are that that both of them can be used on human organism and out of this on critically ill patient as well as on cosmonauts for activation of progenitor precursor committing processes and as result strengthening reparation-regeneration processes with correction immune-response.

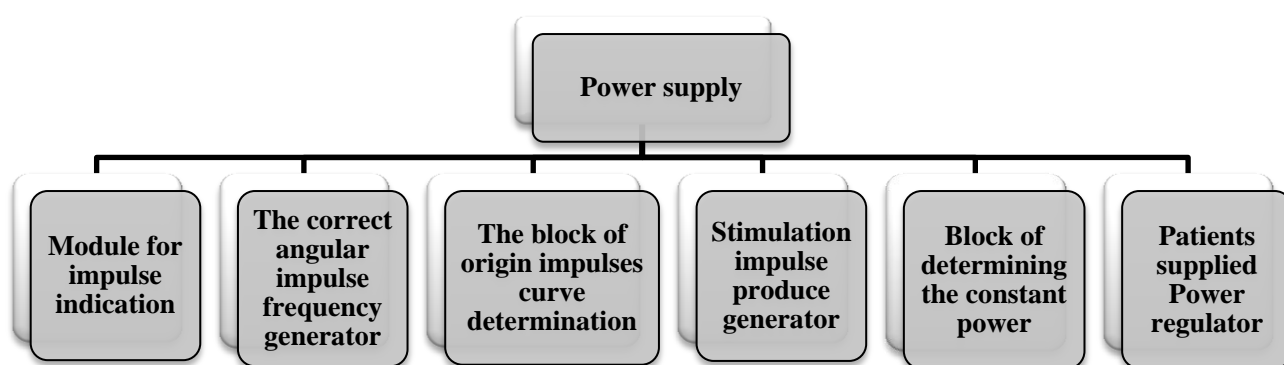


The principal difference between these two devices is that that “Georgia-1” generation device can be used on one part of the body and only locally activate bone marrow than “Georgia-2” generation devices can be used on several parts of the body and widely activate bone marrow.

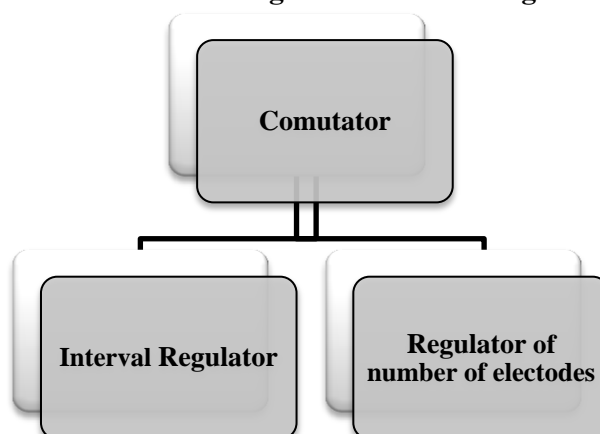
In addition to his contribution to the article called "chakra" are irritability areas, which indicate the existence of the human body and is yogi’s overview the projections areas of the human body.

Yogis suggest that these areas are also likely to significantly increase the body's adaptive mechanisms, to intensify its hardworking and arrange other adverse manifestations.

**Now we preset principal shame of this devises - Slide “Georgia-1” & Slide “Georgia-1” – shame.**



**Now we preset principal shame of Slide “Georgia-2”- Slide “Georgia-2” shame.**





In the end the research on this direction in our institution continues permanently and we hope, that in near future we will have ability to present new data about this subject.

**ზე.ხელაძე, ზ.ხელაძე, ი.სტრელნიკოვი (თბილისი, საქართველო)**

**საქართველო წარადგენს “Georgia-1” და “Georgia-2” თაობის აპარატებს პილოტური კოსმოსური ფრენების სამედიცინო მომსახურებისათვის.**

შრომის მიზანია შეიქმნას კოსმოსური ფენის დროს კოსმონავტთა ორგანიზმში რეგენერაციულ - რეპარაციული პროცესების გამააქტივებელი საშუალებები, რომლებიც იმავდროულად შეძლებენ მათი იმუნური პასუხის კორექციას, აგრეთვე აღადგენენ მათ შრომისუნარიანობას და ხელს შეუწყობენ სხვა არასასურველი გამოვლინებების „ჩაქრობას“. აღნიშნული პრობლემის გადასაწყვეტ მოდელად შერჩეული იქნა კრიტიკული მდგომარეობები. ამ უკანასკნელთა მსგავსება კოსმოსში ადამიანის ყოფნასთან, არის ის, რომ ორივე შემთხვევაში ადამიანის ორგანიზმს ყოფნა უხდება მისთვის არასასურველ, არაადაპტირებულ, შეუზღვეველ გარემოში. ამასთან გარკვეულად მსგავსია მათ მიმართ განხორციელებული ზრუნვის ღონისძიებებიც საკვებით, წყლით და სხვა საშუალებებით უზრუნველყოფის თვალსაზრისით. ამ მიზნით მოწოდებულია “Georgia-1” და “Georgia-2” თაობის აპარატები, რომელთა გამოყენება ხელს უწყობს რეპარაციული პროცესების და იმუნური პასუხის გააქტივებას.