

- to keep your weight in a healthy range, focus on permanent changes to your eating and exercise habits. Motivate yourself by remembering the benefits of losing weight, such as a healthier heart, more energy and improved self-esteem.

Conclusions. So both genetic and environmental predisposition can contribute to type 1 and type 2 diabetes.

NEW WAYS OF SPINAL CORD INJURY TREATMENT

Bensu Kaygin, Luchko E.N.

Scientific supervisor: prof. Filiptsova. O.V

National University of Pharmacy, Kharkiv, Ukraine

ekaterina_luchko86@ukr.net

Introduction. In today presentation we will talk about a enjury that has no cure for it till this moment and for many years there are scientists and doctors try to find any way to help to humans.when this enjury happens for human in addition to have its cost a lot to his family (for the firs year,people with high tetraplegia can expect to pay about a million dollars for care. Low tetraplegia produces about \$769.000 in medical expenses, while paraplegia costs about \$518.000. Injuries that produce incomplete motor function at any level cost an average of \$347.000.

Aim. Even its cost a lot the society and person should bear it till and of his life and actually we can not say a perfect human or complite human to that person who getting this injury. This injury is known as spinal cord injury. When we speak about spinal cord injury we focus just to CNS dameing because it can be injury or disorder in afferent and efferent nervous. But we should care this point: peripheral nervous system can repair itself but CNS can not repair itself because some reasons who which i will discous about them little bit later.

Results and discussion. Spinal cord unlike other parts of the body after deep injuries it is not restored. Damaged (dead) neurons do not transfer nervous messages and depending to area of the damaging, legs, hands and... are working out. Today with anti-inflammatory drugs that should inject max. 8 hours after damaging.

Damaged person can get partial recovery. And from another side death of neurons can be continue in damaged area few weeks after Today we have a lot of supposition to treat this injury:

1. Some of the researchers thinking with avoid dying neurons of the damage section they can prevention paralysis of legs and hands. And in examination about mouses researchers find some paricles and drugs who wich avoid dying of neurons. This mouses shown signs of recovery after 3 weeks and they can walk after 1 year. Injury. Scientists try to find such materials and drugs about humans.

2. Treatment with WIFI waves who wich presented by Lausanne Polytechnic Institute professors (Gregoire Courtine) and they was little successful in this method (but in monkey).

Geogire Courtine say skill of this method is the muscles of the monkey are stimulated to make the foot move. They do this by chip. The chip stimulates the desired nerve by the leg and force it to move. This implant have diameter smallest than coin.But this method is not logical from my perspective because this reasons:

1. It is not definitive treatment and i think they can not get acceptful reason and they sure they can not take any resault.

2. Every think for working need some energy source, chip to working and it is not possible exept surgery wayso person should undergo surgery a couple times in his life.

3. It is need min 20 years to examine it in humans and may be during this years they find some reason to stop this supposition and because this reason i told it is not exeptful way for therapy of spinal cord damaging.it is about WIFI waves theory. And a lot of away and theoris is present and scientists are trying and trying. But here i can see to ways and i searched a lot but i understanded scientists don't presentation and idea to cure this.

My idea have some advantages first during the examination.we dont use and we do not need any external object.such chips or ect. Second, we use a human resourches, for example, we take all laboratory

samples from person. We don't use animal base some electronic knowledge. We use just neurology science and cellology and Third, it can be eternal and natural treatment. so what is these ideas and supposition.

Neurogenesis not happen after birth in our body, but they neurons can growth but because some materials who which is present in our spinal cord. They can not growth but that material is not present in peripheral NS. So what scientists doing. They graft section of peripheral NS to spinal cord to stimulate the axons of spinal cord to grows and axons make some tunnel between together and connect with together this tunnel. We know this even if neurons of spinal column had not that material who wich avoid growthing of neurons they can not grow because after death of neurons in that section connective tissue start to growing in that area so axons can not grow any way.

Conclusion. My idea is this we do not need to take section from peripheral NS. In our brain neurogenesis happening in two sections brain subventricular zone and Hippocampus if we get neurons from that parts and, replication then in good laboratory environment everything will be so easy we replication the and after that we just graft them to our spinal cord and just we should use some methods to avoid growth of the connective tissue and it is already possible for doctors. And second way is about embriology because neurogenesis is happend in Embryo.

WHAT THE SUGAR COATING IN OUR CELLS IS TRYING TO TELL US

Laklaai N., Luchko Ekaterina

Scientific supervisor: prof. Filiptsova.O.V.

National University of Pharmacy, Kharkiv, Ukraine

ekaterina_luchko86@ukr.net

Introduction. Today I'm going to talk about sugar, but it's not that kind of sugar that we eat. This is a talk about sugar that it is related with cancer, in another meaning our cells are coated with sugar and maybe we didn't know about it. In my memories I thought that the sugar coating made our cells stranger and tougher, but it's more complicated than that. And the sugar in our cells is very complex to read it.

Aim. We think that sugars that is on the surface of the cell is kind of a language a code, they are trying to tell us something with their complex stricter. But what kind of something they want us to know?

Results and discussion. I can tell that now a days we can have some information with this complex sugars, something we use it in medical laboratory. For example, blood type, our red blood cells are coated with sugar and the chemical structures of those sugars define you blood type. And by knowing does information, whenever a person need a blood transfusion, the donor need to have the same sugar structure so that you're body specifically our immune system doesn't reject or kill those foreign sugar that came from the donor. What else can a sugar coating tell us about a cell? So it could tell that there is a cancer. Those sugar that cancer have, they've been called sialic acid. This one I can tell it's more important than the other kind of sugar in our time. This is a kind of sugar that is actually found at certain levels on all of the cells in our body, but the problem is that cancer can have more sialic acid than a cell would have. Why cancer would have more sialic acid? The immune system white blood cell, they are running in our bloodstream to protect us from outsider or cancer itself. So to protect us from things gone bad they go and take a taste from cells, so if a cell taste good it's a normal cell but if it's not it's a cancer cell so they kill it.

Conclusion. I will tell you how those things function. The immune system stick to a cancer cell to see if this cell is not normal so when there is this signal the immune system kill this cancer cell, but if the immune system stick to a cancer cell that have a coat full of sialic acid so the proteins of the immune system grabs the sialic acid and they get connected at the synapse between the immune system and cancer cell. So we should come up with a new medicine that wakes up these immune system so it makes them forget this coat of sugar as known as sialic acid so they can destroy the cell.