

## MAJOR DEPRESSIVE DISORDER

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**Introduction.** Major depressive disorder is a common and serious medical illness. Symptoms include: feeling sad or having a depressed mood; loss of interest or pleasure in activities once enjoyed; changes in appetite which causes weight loss or gain unrelated to dieting; insomnia; loss of energy or increased fatigue; increase in purposeless physical activity or slowed movements and speech; feeling worthless or guilty; difficulty thinking, concentrating or making decisions; thoughts of death/suicide.

**Aim.** The purpose of this work is to study the biological mechanisms of depression and possible ways of its treatment.

**Results and discussion.** After further research involving animal models have suggested that there are some functional abnormalities that can be detected in the brains of many patients with major depressive disorder. The front lobe and the limbic system which regulate emotions and in particular, responses to stress, showed abnormal change in activity, in addition to high concentration of the hormone cortisol which is controlled by the hypothalamus that communicates with mostly the front lobe and limbic system. The neurones also known as brain cells, neurones pass messages to each other through electrical impulses, the impulses pass along a part of the neuron called the axon. At the end of the axon the impulses cause the neuron to release chemical messages called neurotransmitters. These chemical messengers move across a tiny gap known as the synaptic gap and attached to another neuron. An example of these neurotransmitters is serotonin, which is secreted by the raphe nuclei, helps regulate mood, emotions and other body functions. After the serotonin has done its job, it is reabsorbed by the neuron to be reused for the next nerve signal, people with depression may have a serotonin imbalance, their overall level of serotonin may be low and some of it may be reabsorbed too soon as a result communication between parts of the brain is impaired. Other neurotransmitters that help regulate emotions are dopamine and norepinephrine.

**Conclusions.** Treatments commonly include antidepressants such as selective serotonin reuptake inhibitors (SSRIs), serotonin norepinephrine reuptake inhibitors (SNRIs), serotonin-dopamine reuptake inhibitors (SDRIs), norepinephrine-dopamine reuptake inhibitors (NDRIs), which help regulate the movement of neurotransmitters and keep them in balance.

## ACQUIRED IMMUNE DEFICIENCY SYNDROME

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**Introduction.** The incurable diseases are the conditions where no treatment can completely fight against the illness and make end of suffering. Some of these diseases can be treated medically and reduce from the pain and symptoms.

The causes of this last can change from illness to another, it depends on the virus or the inflammation and its location, but the main cause is the majority of incurable viruses change and adapt quickly so if scientists develop a cure for one form of the virus it will not be effective for another form specially because it changes very quickly.

Some of the dangerous incurable diseases are the one transmitted sexually.

At first what are the diseases sexually transmitted?

They are the infection which can be transmitted from person to another due to sexual contact, it might be caused by viruses or bacteria or some parasites. AIDS/HIV, genital warts, cytomegalovirus, human papilloma virus «HPV».

We should understand how to treat the acquired immune deficiency syndrome and why we should give it such importance and studies.

HIV is a virus that attacks the immune and destroys the process of response and resistance to foreign substances this immune continue to be attacked by viruses.

They act like impediment to cure from habitual illness, the immune is destroyed little by little by different phases till the end of state when it becomes very weaker and can't resist to simple inflammation. In the last level, a simple illness can lead to death. Nowadays scientists developed some treatment to be able to live with AIDS and extend the period of life.

**Aim.** Although scientists discovered sorts of treatment to this chronic disease, the number of deaths noted due to HIV still important in absence of a cure which remove the virus definitely here is a diagram which notes the number of deaths, number of people living with HIV and amount of the new infection of AIDS/HIV from 1990 to 2016.

**Results and discussion.** In the 90s the tree amounts start to increase progressively from 0 deaths from HIV till 2005 when it was noted the maximum of deaths by approximately 2 million of people and then we note an important decrease till 2016 by number of 1.03 million person.

The new infection with the virus starts from 2 million in 1990 and attends more than 3 million in 1995 and also 2000 then decrease till 2016 by two parts where the minimum was 1.87 million. The number of people living with HIV is increasing from 1990 by number of 870000 to 3.64 million in 2016.

All of this statistics shows how it's important to treat this subject and try to understand why the number of deaths decreased from 2000 and the people living with AIDS increase with years.

As it's already noted scientists are working and trying to discover a cure which delete the virus completely but till now they just developed some treatments to live with it that's why after the year 2000 when they discovered how to extend the duration of life with some treatments, the majority of patients were habituated to live with the disease, thing that explain the drop of the deaths due to the AIDS.

In the other hand we can see the important number of new infection of HIV that we can't be neglected. So we should think how the disease still transmits easily and faster? And, what if we can limit the number of infected person with stopping the spread of the disease?

**Conclusions.** To sum up, the acquired immune deficiency syndrome should not be neglected. Because there is no cure for it, a lot of preventions should be taken and for the simple doubt, a test should be done because it can't be only sexually transmitted but also there are some fluids which can pass the virus from attended person to another such as breast milk, blood, semen, vaginal fluid, rectal fluids, and pre-seminal fluid.

Years ago a German patient was cured from HIV when they extracted some blood and immune cells and modified them to be resistant to AIDS and returned them to the body, after that he didn't even need to take antiretroviral drugs.

Nowadays, a man from United Kingdom may be second person to be cured from this disease. He was diagnosed in 2003, and received a transplant resistant of HIV similar to the first German cured person of bone-marrow and actually he is now in his 18's month of cure without a need of any medicines.

Maybe the final exact cure is near to be discovered, but since nothing is sure we can just say that «Prevention is better than cure».

## **PHARMACOLOGICAL STUDY OF THE LORATADINE AND ITS COMBINATION WITH BUPLEURUM AUREUM EXTRACT LONG-TERM EFFECT ON IMMATURE RAT LIVER BIOCHEMICAL PARAMETERS**

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**Introduction.** Accordingly to WHO, currently about 5% in the world adult population and 15% in the pediatric population suffer from allergic diseases. Among the pharmacologicals, which are related