

Complications of AIDS

Complications of AIDS are mostly associated with the aforementioned diseases, therefore with opportunistic and non-opportunistic infections, in particular affecting the lungs or brain, and tumors whose course leads irreversibly to death. Without treatment, full-blown acquired immunodeficiency syndrome can lead to death within a year, three at the most.

Then there are other possible degenerations of AIDS, which can be grouped into four main types: HIV cachexia or wasting syndrome. As we have seen, one of the symptoms of HIV infection is the tendency to lose weight, often accentuated by recurrent episodes of diarrhea. In the full and final phase of the disease, however, this condition becomes dramatic, with loss of more than 10% of the total body mass, diarrhea, fever and chronic fatigue.

The weakening is irreversible and progressive in patients not treated with anti retroviral protocols; Neurological complications. In general, the HIV virus does not attack nerve cells, however once the syndrome has significantly damaged the immune system,

neurological symptoms may appear, including confusion, mnemonic deficits, depression, problems with walking. AIDS in its terminal phase can even lead to dementia, with the progressive impairment of mental faculties and changes in the personality and habits of the patient;

Kidney disease. There is a specific complication of acquired immunodeficiency syndrome which is called HIV-related peripheral nephropathy. It is a chronic inflammation of the small filters present in our kidneys, the glomeruli, which are responsible for draining the blood, purifying it of toxins and excess water. This syndrome leads to enlarged kidneys and kidney failure;

HIV-related peripheral neuropathies. They are diverse and with complicated names: distal symmetrical polyneuropathy, diffuse infiltrative lymphocytosis syndrome, inflammatory demyelinating polyneuropathies, multifocal inflammatory neuropathies, etc.

Many of the syndromes mainly affect the lower limbs with loss of sensitivity and / or painful neuralgia and muscle weakness and often originate from opportunistic infections. A separate discussion deserves the toxic neuropathy which is instead determined by a reaction to antiretroviral therapies.

We have seen that the condition of seropositivity in the clinical latency phase, characterized by a nuanced symptomatology that can last for up to a decade, can remain so, without, therefore, the acquired immunodeficiency syndrome "collapsing" in AIDS full-blown with its complications and the dramatic consequences, provided you promptly undergo the antiretroviral therapies (ART) recommended in these cases. Let's see what they are.

Diagnosis and Treatment



AIDS is a chronic disease with a lethal outcome, but fortunately it is currently preventable thanks to the early diagnosis of the seropositivity condition that allows you to start taking antiretroviral drugs to block the multiplication of the virus.

To find out if you have been infected with the HIV virus, a simple blood or saliva test is enough. If antibodies to the virus are present, it means that we are HIV positive. Warning: it is useless to take the test the day after unprotected sexual intercourse or other risky behavior. Antibodies take at least 12 weeks to be produced by the body.

In an emergency, it is possible to undergo a faster test, which is based not on antibodies, but on the specific HIV antigen, a protein produced by the virus immediately after infection. If present, it allows the HIV-positive subject to immediately assume virtuous behaviors in order not to spread the infection and above all to become aware of his condition and face the therapeutic path with the doctors.

In general, it is advisable to undergo the standard HIV test every time blood tests are performed, especially if you are part of the risk categories.

Once faced with an initial diagnosis of seropositivity, it is necessary to undergo further tests to understand at what stage the infection has arrived. In particular, the TD4 T lymphocyte count, the viral load test, the drug-resistance test are recommended. The latter is necessary because there are forms of acquired immunodeficiency infection that are resistant to some of the anti-HIV medicines and therefore require specific treatments.



As anticipated, AIDS is not curable, and once infected with the HIV virus it cannot be completely eradicated. That said, there are many drugs available, called antiretrovirals (ART), each of which blocks the virus in a different way. Therefore, it is the combination of at least 3 antiretroviral drugs, to be taken immediately after the first diagnosis of seropositivity, even when there is still no symptomatology, to guarantee protection from the disease in its full-blown and irreversible stage. This

way you can lead a normal life with high expectations. Among the ART available there are:

- Non-nucleoside analogues of reverse transcriptase (NNRTI). Drugs that "turn off" a protein used by the virus to replicate;
- Nucleoside analogues of reverse transcriptase (NRTI). These are "fake" versions of substances that the virus uses to replicate;
- Protease inhibitors (IP). They are drugs that inhibit the viral protease, the last stage of virus multiplication;
- Entry inhibitors (anti CCR5) or fusion. Drugs that prevent the virus from coming into contact with CD 4 T lymphocytes;
- Integrase inhibitors. These drugs work by deactivating integrase, a protein that the HIV virus uses to insert its genetic material into TD4 T lymphocytes.

Depending on the stage of the infection and the greater or lesser resistance to some of the antiretroviral drugs, the therapeutic protocol will be modulated for each patient, but in general the drugs to be taken are at least three in combination to ensure maximum effectiveness.

Naturally, the treatment is intended for life, and once the therapy begins it is necessary to constantly undergo check-ups every 3-6 months - in particular the viral load and the CD4 T lymphocyte count - to verify the effectiveness of the treatments. Like all drugs to be taken daily for years, anti-HIV drugs also have side effects, including:

- Nausea, vomiting, or diarrhea;
- Heart ailments;
- Bone weakening;
- Rhabdomyolysis (breakdown of muscle tissue cells);
- Hypercholesterolemia;
- Hyperglycemia.

Living with HIV and antiretroviral therapies in the best possible way means adopting a lifestyle and behaviors that are as healthy as possible, in order to mitigate the side effects of treatments and improve one's health in general.

Therefore, focusing on good nutrition, with the possible intake of supplements agreed with doctors so that they do not conflict with drugs, exercising and getting vaccinated against the most common infections are the best way to ensure good life expectancy.

Speaking of vaccines, those recommended for people infected with the HIV virus will be based on inactive microorganisms (otherwise they could seriously harm those with a poorly reactive immune system), to be administered in subjects who have had an early diagnosis of seropositivity and promptly initiated antiretroviral therapy.



Prevent AIDS

Unfortunately, at the moment there is still no vaccine that protects against the HIV virus, therefore the only possible way to avoid infection and therefore the danger of getting AIDS is to implement behaviors that eliminate the risk of contracting the virus. infection. We have seen what the main risk factors are, so it is easy to understand which rules of conduct to adopt to neutralize them. But let's repeat what the (simple) golden rules are to prevent HIV infection and to avoid passing it on to others: