

Prolactinoma, one of the most common hypophysis tumors

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Today's healthcare is getting better and better. Thanks to more research and better methods, patients can now be cured of diseases that previously required surgery, by only taking a small pill. One such disease is prolactinoma which is caused by a nonmalignant tumor in the hypophysis of the brain. In the 1970s treatment for all patients consisted of surgery to remove the tumor. Nowadays, patients are treated with drugs and surgery is a last option.

What is prolactinoma and how does it affect humans?

Scientists believe that prolactinomas develops as a consequence of an early mutation which leads to a mutated pituitary stem cell. Exactly how the tumor is formed is unknown.

Prolactinoma means you have a tumor in the hypophysis gland which causes an overproduction of the hormone prolactin. This is a disease that occurs in both women and men but it is more than four times as common in women around the world. The tumors are often larger in men since the symptoms are harder to detect and thus they have longer time to grow before they are detected. The symptoms that you get when you have prolactinoma includes menstrual disturbances, impotence, infertility, none or low production of hormones from the gonads (ovary and testes), milk production not associated with nursing or childbirth and headache. The symptoms arise as a result of too much prolactin in the bloodstream. Prolactin exists in both men and women. All functions of prolactin are still not known. It has been shown to acts as a stress hormone and to have a function in the immune system in research animals, but this has not been studied in humans. In women it plays an important part in pregnancies and milk secretion.

Treatment

Scientists have found drugs that works well to relieve the patient of symptoms and to get rid of the tumor. Today it is most common that patients with prolactinoma get treated with dopamine receptor stimulators. They effectively make the symptoms caused by the overproduction of prolactin go away and in many cases the tumor disappears. Some patients need a lifelong treatment to keep the tumor from growing. Others can, after successfully getting rid of the tumor by medication during a few years, lower the dose of the drug and eventually stop taking the medicine. It is not unusual for the adenoma to reappear and therefor regular follow-ups are of great importance. If the treatment with dopamine receptor stimulators is unsuccessful surgery is an option.

More information

Holm R. 2016. Prolaktinom, en av de vanligaste hypofystumörerna. Självständigt arbete i biologi, Uppsala universitet.