

Serotonin syndrome

Serotonin syndrome is a life-threatening condition that is caused by elevated levels of serotonin. It most often occurs after the use of SSRIs in combination with monoamine oxidase inhibitors, the use of light opioids such as *tramadol*, or during treatment with lithium.

Division

We can divide this condition according to the area of the nervous system that is affected

- **central** – includes conditions such as confusion, dysarthria, tremor, agitation, mania;^[1]
- **periferal** – where we can observe convulsions, flatulence, hypertension and tachycardia.

According to the functions that are affected, it can be divided into:

- cognitive – cefalea, agitation, hallucinations;
- autonomic – hypertermia, vasoconstriction, nausea, diarrhea;
- somatic – myoclonus, hyperreflexia, tremor;

Devision to **central** a **periferal** is used more.

Cause

Serotonin syndrome is not an adverse effect in the idiopathic sense, but is an expected condition of elevated serotonin levels. This effect is due to interactions at the **cytochromu P450 level**. Interactions can occur, for example, with propranolol, theophylline, benzodiazepines and many other drugs. A genetic polymorphism in cytochrome P450 enzymes, which occurs in 10 to 20% of the population, also contributes to serotonin syndrome.

Treatment

Serotonin syndrome can be prevented by administering cyproheptadine, which is a 1st generation antihistamine and also has antiserotonin effects

Links

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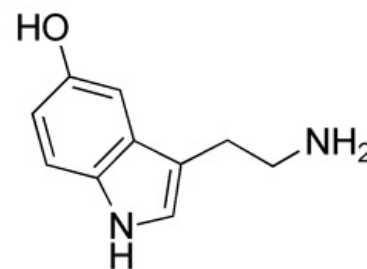
- SSRI
- Serotonin
- Antidepresiva

Used literature

- LINCOVÁ, Dagmar, et al. *Základní a aplikovaná farmakologie*. 1. edition. GALÉN, 2002. pp. 601. ISBN 80-7262-168-8.
- HYNIE, Sixtus. *Farmakologie v kostce*. 2. edition. Praha : Triton, 2001. pp. 520. ISBN 80-7254-181-1.

Refereces

1. LINCOVÁ, Dagmar, et al. *Základní a aplikovaná farmakologie*. 1. edition. GALÉN, 2002. pp. 601. ISBN 80-7262-168-8.



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