

55. SEROTONINERGIC SYNDROME IN MEDICAL PRACTICE

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Introduction. Serotonergic syndrome is a health disorder caused by the use of drugs or the accidental interaction of drugs that affect serotonergic neurotransmission. Because the mentioned syndrome is one with lethal potential, but it is insufficiently studied, this investigation has been initiated.

Aim of study. Elucidation of the causes, etiopathogenic mechanisms, clinical manifestations and treatment principles of serotonergic syndrome based on literature data.

Methods and materials. In order to achieve the proposed goal, the specialised scientific publications were analysed, and also using the databases Google Search, Google Scholar and PubMed aiming at the studied problem. The articles published during the years 2000-2021 were selected as a filter, so 6,151 articles were found that address the topic "Serotonergic Syndrome".

Results. Research has shown that the main causes of serotonergic syndrome include the reckless administration / overdose of drugs with a serotonergic mechanism of action, as well the incompetent combination of serotonergic remedies with other classes of drugs. The main etiopathogenic mechanisms in the onset of serotonergic syndrome include: inhibition of serotonin reuptake in the synaptic cleft; reducing serotonin metabolism; increase serotonin synthesis; increased serotonin release; activation of serotonergic receptors; inhibition of certain enzymes involved in the metabolism and elimination of serotonergic remedies. The listed mechanisms trigger essential changes in the general homeostasis of the body. The Hunter triad may be useful for a positive diagnosis: 1) altered mental status, 2) neuromuscular arousal, and 3) vegetative nervous system dysfunction. The severity of the syndrome can range from mild to severe, associated with rhabdomyolysis, myoglobinuria, metabolic acidosis, kidney failure, coma and death. The differential diagnosis should be made with neuroleptic malignant syndrome, anticholinergic syndrome, malignant hyperthermia, hypertoxic schizophrenia, encephalitis with anti-NMDA receptor antibodies, and others. Therapeutic management, depending on the severity, includes non-pharmacological and pharmacological interventions, including the administration of serotonergic antagonists.

Conclusion. 1) Knowledge of the etiopathogenic causes and clinical manifestations can prevent the onset of this potentially fatal health disorder. 2) Proper therapeutic management significantly reduces the risk of death.