TYPES OF ANALEPTIC SUBSTANCES AND TYPES OF EFFECTS

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Abstract: An analeptic, in medicine, is a central nervous system stimulant. The term "analeptic" typically refers to respiratory analeptics (for example, doxapram). Analeptics are central nervous system stimulants that include a wide variety of medications used to treat depression, attention deficit hyperactivity disorder, and respiratory depression. Analeptics can also be used as convulsants, with low doses causing patients to experience heightened awareness, restlessness, and rapid breathing. The primary medical use of these drugs is as an anesthetic recovery tool or to treat emergency respiratory depression. Other drugs of this category are prethcamide, pentylenetetrazole, and nikethamide. Nikethamide is now withdrawn due to risk of convulsions. Analeptics have recently been used to better understand the treatment of a barbiturate overdose. Through the use of agents, researchers were able to treat obtundation and respiratory depression.

Keywords: Analeptics, nikethamide, etimizol, camphor, cordiamine, heart increases.

Substances to all departments of the central nervous system has a stimulating effect, but on one or another section of each the effect will be stronger. Analeptics mainly in the medulla oblongata bemegrid, which stimulates the respiratory and vascular center,includes korazol, camphor, etimizol. Substances of the cerebral cortex and also stimulates the spinal cord, but a therapeutic amount of ulamin first of all, it affects the medulla oblongata. In the medulla oblongata do not stimulate the vascular center located and peripheral vascularization increases resistance, reduces the volume of accumulated blood, vein return of blood to the heart, the stroke volume of the heart increases, blood pressure rises. Analeptics increase the excitability of the respiratory center, to the carbonic acid of the center and to the excitability of the nerves increases sensitivity. The breath quickens and deepens, in the lungs the volume of oxygen, the vitality of the lungs increases. Etimizol, bemegrid, korazol directly affects the longitudinal centers of the brain shows.

If the amount of analeptics increases, convulsions occur, because their central excitatory and convulsant amounts are close to each other. An example of this is corazol, so it is the substance is hardly used. Bemefid on analeptic activity It is stronger, followed by cordiamine, camphor takes Analeptics are the opposite of narcotics, it has the properties of anesthetizing, awakening, but this is the effect

in high amounts of analeptics that cause convulsions observed. The mechanism of action of analeptics is not fully established substances increase the excitability of neurons, the activity of

the reflex apparatus, increases the tone of nerve centers, interneuronal conductivity also has a positive effect.

Analeptics are light with narcotics, hypnotics, ethyl alcohol used in case of poisoning. Due to the increase in temperature of children in pediatrics in the resulting collaptoid cases, lungs after narcosis to increase ventilation, which occurs after the cold used to prevent atelectasis. But children in practice, analeptics are used less and less, because hypoxia If analeptics are given to children in case of severe convulsions can be, so face in newborns It is forbidden to use this substance in case of severe hypoxia.

Analeptics are a diverse group of medications that work through a variety of chemical pathways; analeptic medications work through four main mechanisms to stimulate respiration. Analeptics can act as potassium channel blockers, ampakines, serotonin receptor agonists, and adenosine antagonists.

Two common potassium channel blockers are doxapram and GAL-021. Both act on potassium channels in carotid bodies. These cells are responsible for sensing low concentrations of oxygen and transmitting information to the CNS, ultimately leading to an increase in respiration. Blocking the potassium channels on the membranes of these cells effectively depolarizes the membrane potential, which in turn leads to opening of voltage-gated calcium channels and neurotransmitter release. This begins the process of relaying the signal to the CNS. Doxapram blocks leaky potassium channels in the tandom pore domain family of potassium channels, while GAL-021 blocks BK channels, or big potassium channels, which are activated by a change in membrane electron potential or by an increase in internal calcium.

Ampakines are the second common form of analeptics, which elicit a different mechanism for an analeptic response. They bind to AMPA receptors, or alpha-amino-3-hydroxy-5-methyl-4-isoxazolepropionate receptors, within the pre-Bötzinger complex. The pre-Bötzinger complex is part of the ventral respiratory group and the induction of long-term potentials in the postsynaptic membrane of these neurons leads to an increased respiratory rate. The endogenous AMPA receptor ligand is glutamate and ampakines mirror glutamate's interaction with the receptors. Ligand binding causes AMPA receptors to open and allow for sodium ions to flow into the cell, leading to depolarization and signal transduction. At this time, CX717 is the most successful ampakine in human trials and has very few side effects. Analeptics have a high effect on the spinal cord, to clonic and tonic convulsions by stimulating the motor center will bring. Due to convulsions, the central nervous system is exhausted, first of all the respiratory center is paralyzed. Analeptics in high doses nausea, vomiting, dizziness, arrhythmia, fevercause. In severe cases, swelling of the lungs, urine stop, the patient may even die. Anticonvulsants in acute poisoning with analeptics use, its absorption into the blood should be stopped, the stomach should be rinsed, saline repellents, sorbents are used and poisoning mitigation measures are taken. Cordiamine acts directly on the central nervous system and the reflector affects. It has a wide range of effects and is non-toxic. Cordiamine vascular tone when blood circulation is acutely and chronically derailed when it decreases, the breath of patients suffering from infectious diseases occurring in deficiency, acute collapse, during surgery in cases of shock and in newborns enteral and administered parenterally.

References:

1. Kharkevich D.A. - Pharmacology, M. 2005 g.

2. S.A. Krijanovsky - Clinical Pharmacology, M., "Academy", 2003.

3. Rukovodstvo po eksperimentalnomu (do klinicheskomu)izucheniyu new pharmacologicheskikh veshestv. Pod obshey redaksiyey chlena korrespondenta RAMN, professor R.U. Khabriyeva, M., "Meditsina", 2005

4. Directory vidal. Medicinal product in Uzbekistan, M., AstraFarmServis, 2010.

5. Abbas A, Roth BL. (2008) Arresting serotonin. Proc Natl Acad Sci USA 105:831–832. [PMC free article] [PubMed] [Google Scholar]