MEMORY ENHANCER AGENTS (NOOTROPICS)

MISHU

Abstract

Nootropic is derived from Greek words noos or “mind” and tropic means “to bend/turn”. They improve mental functions such as cognition, memory, intelligence, motivation, attention and concentration. They work by increasing brain oxygen, nerve growth, brain neurotransmitters, hormones, enzymes. Unlike caffeine and amphetamine, nootropics only act within the brain, so they lack the discomfort and danger of stimulants. Some researches dubbed nootropics "Smart Drugs."
IDEAL NOOTROPICS
Enhances learning, memory and resists agents impairing memory; neuroprotection against chemical and physical agents; absence of negative pharmacological effects.

MECHANISM OF ACTION
Decrease platelet aggregation, increase cerebral blood flow and oxygen consumption. Increase adenylate cyclase-breakdown of ADP to ATP, increase density of frontal cortex ACH receptors by 30-40%.

USES
Stroke, Alzheimer’s disease, Schizophrenia, Clotting and coagulation disorders, ADHD.

DRUGS
1) Plant derivative: Vinpocetin-increases blood flow in brain and improves overall cerebral inefficiency.
2) Traditional herbs: Bramhi, Ginkgo biloba, Shilajit.
3) Recreational drugs: Amphetamine, tetrahydrocannabinol, 4-methylaminorex, tobacco.
4) Race tam: Piracetam-increases communication between the left and right hemispheres of the brain and protects the brain from oxygen-deprived conditions.
5) Vitamins and supplements: Omega-3, Isoflavones, Vitamin D, Vitamin B
6) Stimulants: Amphetamine, Adrenergic, Cholinergic, Xanthenes
7) Dopaminergics: L-Dego, Dopamine agonist, MAO-inhibitors
8) GABA Blocker: Suritoxole
9) Glutamate activator: IDRA-21 believed to improve memory by enhancing long term potentiating.
11) Direct hormones: pregnelone-neurogenesis, vasopressin-memory encoding and recall

ADVERSE EFFECTS
Although nootropics are found have very few or no side effects but long use can cause insomnia, risk of addiction, influenza, diarrhoea, intense hyperactivity, headaches and heart palpations.
LETTER

Nootropics, from the Greek "noos" for "mind" and "tropos" for "growing," are a set of compounds that act safely on the brain to improve focus, wakefulness, cognition, creativity, memory, and alertness; many protect brain cells from damage and help revitalize them. Unlike caffeine and amphetamine, nootropics only act within the brain, so they lack the discomfort and danger of stimulants. Some researches dubbed nootropics "Smart Drugs."

LIST OF NOOTROPICS

1) Plant derivative: Vinpocetin-increases blood flow in brain and improves overall cerebral inefficiency.
2) Traditional herbs: Bramhi, Ginkgo biloba, Shilajit.
3) Recreational drugs: Amphetamine, tetrahydrocannabinol, 4-methylaminorex, tobacco.
4) Racetam: Piracetam-increases communication between the left and right hemispheres of the brain and protects the brain from oxygen-deprived conditions.
5) Vitamins and supplements: Omega-3, Isoflavones, Vitamin D, Vitamin B
6) Stimulants: Amphetamine, Adrenergic, Cholinergic, Xanthenes
7) Dopaminergics: L-Depo, Dopamine agonist, MAO-inhibitors
8) GABA Blocker: Suritozole- α5 partial inverse agonist.
9) Glutamate activator: IDRA-21 believed to improve memory by enhancing long term potentiating.

MECHANISM OF ACTION

• Decrease platelet aggregation.
• Increase cerebral blood flow and oxygen consumption.
• Increase adenylate cyclase-breakdown of ADP to ATP.
• Increase density of frontal cortex ACH receptors by 30-40%.

USES

• Stroke
• Alzheimer’s disease
• Schizophrenia
• Clotting and coagulation disorders
• ADHD
• Senile Dementia

ADVERSE EFFECTS
Nootropics have very few or no adverse effects but its prolonging use can cause adverse effects which are as following:

• Insomnia
• Risk of addiction
• Influenza
• Diarrhoea
• Intense hyperactivity
• Headaches
• Heart palpations

REFERENCES
1. Dorlands Medical Dictionary” Archived from the original on 2008-01-30.