THE IMPORTANCE OF ACTIVATED COAL IN MEDICINE

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The goal. *To study the beneficial and harmful properties of activated charcoal, to teach people that taking activated charcoal can give good results in the treatment of severe infectious diseases such as poisoning with salts of heavy metals, food poisoning, as well as dysentery, cholera, typhoid.*

It’s urgent. *Production, application, importance of activated charcoal in medicine.*

Methods and methods. Since ancient times, for therapeutic purposes, various sorbents(Sorbsia (Latin "sorbeo")-derived from the word swallow, which means so. The absorption of one substance (sorbtiv) by the second substance (sorbent), regardless of the volume, is called sorption. By the mechanism of sorption is divided into adsorption, absorption, hemosorption and capillary condensation) widely used. The intake of coal powder has yielded good results in the treatment of severe infectious diseases, such as poisoning with salts of heavy metals, food poisoning, as well as dysentery, cholera, typhoid fever.

In addition, coal has benefited in the treatment of chronic gastritis, protracted colitis, high acidity of gastric juice, severe forms of diarrhea (diarrhea). For the first time, it was synthesized by Nikolai Dmitrievich Zelinsky in 1915 year and was used as a protivogas in the chemical preservative universal, and later as a catalyst (if acetylene is transferred over the activated charcoal at 450°C, it forms benzene by trimerylation).

In activated charcoal, aromatic substances are slightly better adsorbed than aliphatic substances.

For the production of activated charcoal, peat, coal and tree coal, other plant substances heated in an airless environment, are used, and then they are subjected to additional chemical treatment. As a result, a carcass substance with small holes is obtained. The essence of using the maximum small holes is to increase the contact surface. The larger the ratio of the surface of the body to its volume, the more active the contact of its contact becomes and the better it is absorbed. Thus, the specific surface area of Fawn coal is 400 square meters per gram, in the most difficult brands this figure can reach 1800-2200 m2.

But with the discovery of new, more effective bactericidal drugs and later antibiotics the popularity of activated charcoal as a therapeutic agent has decreased. Even to date, this drug is the most effective non-antimicrobial antidote, which binds a large number of toxic substances and prevents their absorption due to high surface activity. Thus, only 1 gram of Fawn coal can bind to itself 800 mg of morphine, 700 mg of barbital, 300-350 mg of other barbiturates and alcohol.

Results. Fused (activated) coal-carbolen has an entersorbent, dezintoxication and antidiuretic effect.

Polyvalent belongs to the group of Physico-Chemical antidotes, has high surface activity, adsorbs poisons and toxins in the gastrointestinal tract and before their absorption. It is active in hemophilia as a sorbent.

Weak adsorption of alkali and acids, as well as iron salts, cyanides, malation, methanol, ethylenglycol. It does not affect the mucous membranes. In the treatment of intoxication it is necessary to ensure an excess of coal in the stomach (before washing it) and in the intestine (after washing the stomach). A decrease in the concentration of coal in the medium causes the desorption of the bound substance and its absorption.

In the case of food masses in the gastrointestinal tract, the drug, that is, the introduction of activated charcoal in large doses, is required, since the gastrointestinal composition is absorbed by coal, and coal activity decreases. Coal should be used for

several days, if the poisoning is caused by substances involved in enterogepatic circulation (cardiac glycosides, indocin, morphine and other opiates).

Especially effective as a sorbent in hemoperfusion in cases of acute poisoning with barbiturates, glutamide, theophylline. Tiradi decrease in the effectiveness of other drugs that are taken simultaneously and drugs that affect the mucous membrane of the gastrointestinal tract.

Application in medicine: dezintoxification, dyspepsia, meteorism, rotting, fermentation processes, hypersecretion of meda juice, diarrhea in Endo and exotoxications with high acidity of meda juice;

Alkaloids, glycosides, heavy metal salts, food poisoning;

Food toxicoinfection, dysentery salmonellosis, a burn disease in the stage of toxemia and septicotoxemia;

Renal failure, chronic hepatitis, acute viral hepatitis, cirrhosis of the liver, atopic dermatitis, bronchial asthma, gastritis, chronic cholecystitis, enterocolitis, cholecystopancreatitis

Poisons with chemical compounds and drugs (including phosphoric and chlorogenic compounds, psychoactive drugs), allergic diseases, violation of metabolism, abstinence syndrome with alcohol;

In oncobemors against the background of irradiation and chemistryerap in intoxication: in preparation for X-ray and endoscopic examination (to reduce the amount of gas in the intestines).

Contraindications: simultaneous reception of this remedy with ulcerative lesions of the gastrointestinal tract (including ulcers of the stomach and duodenum, in the nonspecific ulcerative colitis), bleeding from the gastrointestinal tract, with the means that the effect begins after absorption (for example, methionine, etc.).

Side effects of activated charcoal on the body: among the side effects of the drug are dyspepsia, constipation or diarrhea, with prolonged use-hypovitaminosis, decreased absorption of nutrients (fats, proteins), hormones in the gastrointestinal tract.

Through activated charcoal in hemoperfusion-thromboembolism, hemorrhages, hypoglycemia, hypocalcemia, hypothermia, a decrease in arterial pressure.

Conclusion. With fawn coal, no other drug should be taken, since they are inevitably absorbed, and at the same time reduce the ability of coal to absorb toxic substances. The use of activated charcoal as a sorbent is most effective in the first 12 hours after poisoning. At the same time, coal itself is not absorbed and does not undergo metabolism in the gastrointestinal tract; it is excreted with feces and paints it in black.

Activated charcoal can also be taken in case of meteorism (abdominal rest), dyspepsia, colitis, high acidity of gastric juice, diarrhea, poisoning from food. After 1-2 hours after eating 2-4 times a day from 1,5 Gramm to 2 Gramm, it is necessary to drink with drinking water (it is better to take crushed tabletki will give a good effect).

However, this drug is not intended for long-term, permanent use. It is used as an ambulance and is usually taken for several days. In fact, activated charcoal binds to itself in the gastrointestinal tract not only poisonous, but also many substances useful for the body (ferments, vitamins, amino acids, etc.). In addition, conducted studies have shown that continuous intake of this drug can lead to undesirable toxic effectsirga (nausea, vomiting and other unpleasant complications).

USED LITERATURE

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