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PREPARATIONS OF "ANANTA" LTD in the treatment of the gastroduodenal diseases associated with *helicobacter pylori*

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The problems of treatment of the gastroduodenal diseases associated with *Helicobacter pylori* are a major problem in modern gastroenterology. According to the latest international recommendations, the leading places in the treatment of this group of diseases belong to antibacterial agents and proton pump inhibitors. These drugs are included in almost all therapy regimens.

Considering the high cost of these drug groups produced by many companies, the medicinal product of "Ananta" company are of interest, being both more affordable in price and similar to drugs that are not inferior in their effect. Among the wide range of medicines produced by this company, we would like to mention a few.

PANOCID (PANTOPRAZOLE)

1 tablet of Panocid contains 40 mg of pantoprazole.

The medicinal product belongs to the group of proton pump inhibitors - drugs for the treatment of ulcers and gastroesophageal reflux disease.

As H+-K+-ATPase inhibitor of parietal cells, it disrupts the transfer of hydrogen ions from the parietal cell into the lumen of the stomach and blocks the final stage of hydrophilic secretion of hydrochloric acid. It reduces basal and stimulated secretion of hydrochloric acid (regardless of the type of stimulant – acetylcholine, histamine, gastrin). In duodenal ulcer disease associated with *Helicobacter pylori*, such a decrease in gastric secretion increases the sensitivity of the microorganism to antibiotics. Pantoprazole has antimicrobial activity against *Helicobacter pylori* and contributes to anti-Helicobacter effect of other drugs.

After oral administration, the drug is quickly and completely absorbed; approximately 90-95% of the drug binds to plasma proteins. Pantoprazole is metabolized in the liver by the cytochrome P450 enzyme system. The maximum concentration in blood serum reaches after 2.5 hours. The effect lasts for 24 hours. Approximately 71% of the drug is excreted by the kidneys and 18% with faeces.

The main indications for the use of Panocid are gastric and duodenal ulcers in the acute phase, gastroesophageal reflux disease, Zollinger-Ellison syndrome, *Helicobacter pylori* eradication (in combination with antibacterial therapy), non-ulcer dyspepsia, chronic gastritis with increased acid-forming function of the stomach in the acute stage.

Use for peptic ulcer disease – 1 capsule (40 mg) 2 times a day for 2-6 weeks; duodenal ulcer – 1 capsule (40 mg) 2 times a day for 2-4 weeks; gastroesophageal reflux disease – 1 capsule (40 mg) 2 times a day for 4-8 weeks; maintenance therapy for gastroesophageal reflux disease – 1 capsule (40 mg) once a day for 12 months; chronic gastritis with increased acid-forming function of the stomach in the acute stage – 1-2 capsules (40-80 mg) a day for 2-4 weeks; *Helicobacter pylori* eradication (in combination with antibacterial agents (amoxicillin, clarithromycin, tetracycline, furazolidone, metronidazole, bismuth preparations) – 1 capsule (40 mg) 2 times a day for 7 days; maximum up to 2 weeks; 2 capsules (40 - 80 mg) a day for 2-3 weeks, the dose is selected

individually depending on the initial level of gastric secretion in case of Zollinger-Ellison syndrome, the initial dose of the drug is 3 capsules (120 mg) once a day for 2-8 weeks.

In isolated cases, the following side effects are observed: nausea, diarrhea, constipation, flatulence, abdominal pain, headache, general weakness, skin rash, dizziness, depression, increased blood transaminases activity, drowsiness, insomnia, photophobia, paraesthesiae, visual disturbance, tinnitus, haematuria, impotence, alopecia, acne, allergic reactions, fever, eosinophilia.

The drug is contraindicated in case of increased hypersensitivity, severe renal failure, hepatitis, liver cirrhosis, pregnancy and breastfeeding. It is not recommended for children under 15 years of age.

There are no data on drug overdose. If an overdose is suspected, symptomatic therapy is carried out. Dialysis is ineffective.

It is not recommended to prescribe Panocid for the treatment of hyperacidic states associated with dietary or other (alcohol, smoking) factors. Before starting pantoprazole treatment of peptic ulcer disease, it is necessary to rule out the malignant nature of the process, because masking the symptoms of the disease can lead to its late diagnosis. In elderly patients, the dose should not be more than 40 mg a day. Caution must be exercised when driving and performing work that requires attention.

When co-administered with other medicinal products, a change in the absorption of drugs, the absorption of which depends on the pH level (ketoconazole), is possible. No clinical interaction of pantoprazole with such drugs as diazepam, warfarin, theophylline, phenytoin, digoxin, as well as oral contraceptives and antacid drugs has been found.

NAUSILLIUM (DOMPERIDONE)

Domperidone is an antagonist of dopamine (D2) receptors. The structure of domperidone is close to some neuroleptics of the butyrophenone group (droperidol, pimozide). The action of domperidone is similar to metoclopramide. Unlike metoclopramide, domperidone does not penetrate the blood-brain barrier and therefore does not cause extrapyramidal disorders. Domperidone alleviates dyspeptic symptoms associated with reduced gastric emptying.

The drug is administrated orally, 15-30 minutes before meals.

In case of gastrointestinal tract disorders, adults are prescribed 10 mg 3-4 times a day before meals, and the dose may be increased to 60 mg a day, if necessary. Children are prescribed 0.3 mg/kg of body weight. Repeat 3-4 times a day, if necessary.

Adults should take 10-30 mg for nausea, vomiting and other symptoms. Repeat 3-4 times a day, if necessary. The maximum daily dose is 60 mg. Children are prescribed 0.3 mg/kg of body weight. Repeat 3-4 times a day, if necessary. The drug is not prescribed to newborns and infants.

Domperidone should not be used during pregnancy unless considered as necessary. Domperidone excretes into milk during breastfeeding; its use should be excluded for breastfeeding women.

Domperidone is limited to use in case of kidney and liver impairment. Side effects such as headache, dizziness, dry mouth, thirst, gastrointestinal smooth muscle spasm, constipation, allergic reactions (skin rash, itching), extrapyramidal disorders are sometimes observed. The drug can cause the increased serum prolactin levels, galactorrhea and gynaecomastia.

Domperidone hardly penetrates the blood-brain barrier. However, due to the incomplete development of this barrier, acute dystonic reactions may be observed in children under 1 year of age. This fact should be considered when prescribing domperidone to children under one year of age. The recommended dosage should not be exceeded. Like other dopamine blockers, domperidone may cause galactorrhea and, less commonly, gynaecomastia. Domperidone should not be prescribed for the prevention of postoperative vomiting.

Since domperidone affects the patency of the gastrointestinal tract, it may be necessary to change the dosage of other drugs taken at the same time. Anticholinergic drugs weaken the effect of domperidone. Domperidone should not be prescribed together with cholinolytics (due to the opposite effect on peristalsis). The concomitant use of anticholinergic drugs may restore the patency of the gastrointestinal tract in case of an overdose of domperidone. Antacids and antisecretory drugs reduce the bioavailability of domperidone.

AZICLAR (CLARITHROMYCIN)

1 tablet of Aziclar contains clarithromycin 250 mg or 500 mg.

Clarithromycin belongs to the macrolide group of antibiotics. It acts mainly bacteriostatically, and it is bactericidal in high doses. After oral administration, clarithromycin is quickly and completely absorbed from the gastrointestinal tract. Bioavailability is up to 50%. Food slows down absorption, but does not affect the drug's bioavailability.

Most of the dose is excreted in the form of metabolites with bile. 5-10% is excreted with bile unchanged. When taking 250 mg 2 times a day, 15-20% of the unchanged drug is excreted in the urine, and when taking 500 mg 2 times a day – up to 36%.

Aziclar should not be prescribed in the first trimester of pregnancy, unless the expected benefit to the mother outweighs the potential risk to the foetus. According to the results of some animals trials, it is possible to assume the presence of embryotoxic action in clarithromycin, but these doses are clearly toxic to the mother. The teratogenic effect of clarithromycin in humans has not been described. Clarithromycin excretes into breast milk in significant quantities and must not be prescribed to lactating (breastfeeding) women. If it is necessary to use clarithromycin during this period, breastfeeding must be discontinued.

Aziclar should be used with extreme caution in case of liver and kidney impairment. It is necessary to regularly monitor the activity of liver enzymes in case of chronic liver diseases. The concomitant use of Aziclar with ergot derivatives is contraindicated. When prescribing Aziclar against the background of drugs metabolized by the liver, it is recommended to determine their concentration in the blood plasma. In the case of co-administration with warfarin and other indirect anticoagulants, it is necessary to monitor the prothrombin time. In case of heart diseases, the co-administration of Aziclar with terfenadine, astemizole, cisapride is not recommended.

The drugs, metabolized in the liver with the participation of the cytochrome P450 system (including cyclosporine, disopyramide, alkaloids of cornflowers, lovastatin, midazolam, triazolam, phenytoin, warfarin), may increase their concentration when co-administrated with Aziclar. Clarithromycin slows down the elimination of theophylline and carbamazepine. When Aziclar is co-administrated with theophylline preparations, an increase in theophylline level in the serum may be observed. As a result theophylline

intoxication may occur. When Aziclar is co-administrated with carbamazepine, the effects of the latter may be enhanced. The concomitant use of Aziclar and digoxin can cause an increase in the concentration of digoxin in the blood plasma and an increase in its therapeutic and side effects. Aziclar can increase the effect of hypoglycaemic drugs, therefore, when prescribing Aziclar to patients with diabetes, the level of glucose in the blood should be monitored (risk of hypoglycaemia). As a result of the concomitant use of Aziclar and zidovudine in HIV-infected patients, the constant concentration of zidovudine may decrease, so the drugs must be used with an interval of 1-2 hours. The metabolism of clarithromycin slows down when Aziclar is co-administrated with ritonavir. The concomitant use of Aziclar and omeprazole or ranitidine can cause an increase in their concentration in the plasma, but the dose reduction is not necessary. No interaction of Aziclar with oral contraceptives has been found.

Thus, the medicinal products of "Ananta" can be recommended for inclusion in therapy regimens for patients with gastroduodenal disorders associated with *Helicobacter pylori*.

The reference article is at the link:
https://anantamedicare.com.ua/ru/specialistam1/izbrannye-voprosy-gastroenterologii-xxi-veka/