CONTRYMAX

Instructions for medical use of the drug

Tradename: Contrymax.

INN: Aprotinin.

Dosage form: lyophilized powder for the preparation of a solution for intravenous administration.

Pharmacotherapeutic form: Hemostatic drug. Fibrinolysis inhibitor is a polyvalent inhibitor of plasma proteinases. Proteolysis inhibitor.

Compound:

Each bottle contains:

lyophilized aprotinin 10000 KIE;

One ampoule with solvent contains:

isotonic sodium chloride solution 0,9% - 2 ml.

Characteristics: the activity of aprotinin is expressed in KIU - kallikrein inactivating units.

Pharmacological properties

Pharmacodynamics: Contrymax is a polyvalent inhibitor of plasma proteinases obtained from the lungs of cattle. It has antiproteolytic, antifibrinolytic, hemostatic effects. By forming complexes with enzymes such as plasmin, trypsin, chymotrypsin, kallikrein inactivates the main proteinases in plasma, blood cells and tissues, which play a role in the pathophysiological processes of hemostasis disorders. The therapeutic effect of Contrymax is associated primarily with inhibition of plasmin and blockade of plasminogen activation by endogenous activators.

Based on the wide spectrum of its activity, aprotinin can be used not only as an antifibrinolytic agent, but also as a therapeutic and prophylactic agent in the treatment of disorders of other enzyme systems of the body.

Antiprotease activity determines effectiveness in pancreatic lesions and other conditions with high levels of kallikrein and other proteinases in plasma and tissues. By inhibiting plasmin, it reduces the fibrinolytic activity of the blood, inhibits fibrinolysis and has a hemostatic effect in coagulopathies . Blockade of the kallikrein-kinin system allows the use of aprotinin for the prevention and treatment of various forms of shock and angioedema.

Indications:

- pancreatitis (acute, exacerbation of chronic, postoperative prevention), pancreatic necrosis;
- performing diagnostic studies and operations on the pancreas (prevention of enzymatic autolysis of the pancreas during operations on it and nearby abdominal organs);
- prevention of acute nonspecific postoperative mumps;

- open heart surgery using artificial blood circulation machines, etc.;
- bleeding due to hyperfibrinolysis: post-traumatic, postoperative (especially during operations on the prostate gland, lungs), before and after and during childbirth (including with amniotic fluid embolism), polymenorrhea;
- angioedema; - shock (toxic; traumatic, burn, hemorrhagic);
- extensive and deep traumatic tissue damage; - as an adjuvant therapy - coagulopathy, characterized by secondary hyperfibrinolysis (in the initial phase, before the onset of effect after the use of heparin and replacement of coagulation factors);
- massive bleeding (during thrombolytic therapy), during extracorporeal circulation;
- prevention of postoperative pulmonary embolism and bleeding, fat embolism in polytrauma, especially in fractures of the lower extremities and skull bones.

Contraindications:

- hypersensitivity to cattle protein, to aprotinin, patients who have antibodies to aprotinin or have been using aprotinin within the previous 12 months, if it is impossible to determine antibodies to aprotinin;
- DIC syndrome (except for the coagulopathy phase);

- age up to 18 years;
- I trimester of pregnancy (II and III trimesters of pregnancy as a last resort), lactation period.

With caution: cardiopulmonary bypass surgery, deep hypothermia, circulatory arrest during surgery using a heart-lung machine (risk of renal failure and death), history of allergic reactions, previous treatment with aprotinin, as well as in patients who 2-3 days before This was achieved with muscle relaxants.

Precautions: IV is administered only in the supine position. Due to the high risk of developing allergic reactions and anaphylactic shock, before use, it is necessary to conduct a test dose (1 ml -10,000 KIU) intravenously 10 minutes before administering the therapeutic dose to identify possible individual hypersensitivity. If the test dose did not cause an allergy, a therapeutic dose can be administered. 15 minutes before the administration of a therapeutic dose, it is possible to use H1 receptor blockers (clemastine) and H2 receptor blockers (cimetidine).

Muscle relaxants 2-3 days before. If anaphylactic reactions develop, administration is stopped immediately and appropriate therapy is carried out.

Use during pregnancy and breastfeeding:

If vital indications require it, this drug can be used in pregnant women, but only after 12 weeks of gestation and under strict medical supervision.

Directions for use and dosage:

The dose is selected individually, depending on the diagnosis, the patient's condition, and the surgical situation. It should be administered through the main veins; do not use them to administer other drugs. The drug is administered only in the "lying down" position, intravenously, in a stream, slowly (maximum - 5 ml per minute) or drip into 300 - 500 ml of isotonic sodium chloride solution.

Acute pancreatitis: 300 thousand - 10 thousand KIU (0.5-1 million KIU, followed by a decrease over 2-6 days to 50-300 thousand KIU per day until complete cancellation (after the disappearance of enzymatic toxemia) for 2-6 days.

For exacerbation of chronic pancreatitis: 25-50 thousand KIU per day for 3-6 days, for the prevention of traumatic pancreatitis 200 thousand KIU before surgery and then 100 thousand KIU every 6 hours for 2 days after the intervention.

For bleeding and hemorrhages associated with hyperfibrinolysis: 100-200 thousand KIU intravenously, if necessary, up to 500 thousand KIU (depending on the intensity of bleeding).

Hyperfibrinolytic coagulopathy: initial dose - 1 million, maintenance dose of 50 thousand KIU per hour.

During surgical interventions for the purpose of prevention before and during, after surgery: 200-400 thousand KIU, then 100 thousand KIU for 2 days.

In obstetric practice: the initial dose is 1 million KIU, then every hour 200 thousand KIU until the bleeding stops.

For shock: in the initial dose of 300 thousand KIU - 400 thousand KIU, then 200 thousand KIU intravenously, in a stream, every 4 hours.

Heart surgery: 2 million KIU at the beginning of anesthesia for 30 minutes, then 500 thousand KIU per hour until the end of surgery.

During open heart surgery (with cardiopulmonary bypass) to reduce blood loss and the need for blood transfusion: an initial dose of 1-2 million KIU is administered slowly IV over 20-30 minutes after the onset of anesthesia and before sternotomy. The next 1-2 million KIU are added to the primary volume of the heart-lung apparatus. Aprotinin should be added to the primary volume during the recirculation period to ensure sufficient dilution of the drug and prevent interaction with heparin. After the end of the bolus injection, a constant infusion at an administration rate of 250-500 thousand KIU/hour until the end of the operation. The total amount of aprotinin should not exceed 7 million KIU.

Drug interactions:
Addition of aprotinin to heparinized blood causes an increase in the clotting time of whole blood. When used simultaneously with rheomacrodex, the sensitizing effect is mutually enhanced. With simultaneous use, aprotinin, depending on the dose, inhibits the action of streptokinase, urokinase, alteplase.
Aprotinin is a weak inhibitor of serum pseudocholinesterase. With simultaneous use, this may slow down the metabolism of suxamethonium chloride and enhance muscle relaxation, and there is a risk of developing apnea. Should not be used in combination with beta- lactam antibiotics. It is prohibited to administer the drug together with solutions containing dextran, corticosteroids, parenteral nutrition solutions containing amino acids and lipids.

Special instructions: Before prescribing aprotinin, each patient is recommended to test for the presence of antibodies to it (immunoglobulin G).

Kallikrein, plasmin, and thrombin is monitored.

For hyperfibrinolysis, it is used against the background of heparin administration.
For the treatment of severe anaphylactic reactions, along with generally accepted emergency measures, adrenaline (0.05-0.1 mg) is immediately administered intravenously (adrenaline is reintroduced if necessary), GCS is prescribed in high doses (for example, 0.25-1 g prednisolone), plasma expanders are used.
In cases of the development of allergic reactions and the appearance of symptoms of shock, administration of the drug should be stopped immediately. In case of hyperfibrinolysis and DIC syndrome, aprotinin can be used only after eliminating all manifestations of DIC syndrome and against the background of the preventive action of heparin. Use with caution in patients who have been administered
muscle relaxants within the previous 2-3 days. It is recommended to re-use aprotinin no earlier than 6 months after its previous use. The risk of developing hypersensitivity reactions is high for patients who were administered aprotinin 15 days to 6 months before the start of treatment.

Overdose
An overdose of this drug has not been recorded. There is no specific antidote.
Side effects
It is possible to develop allergies, including anaphylaxis. The likelihood of allergies increases in proportion to the number of drug administrations. Tachycardia may also occur, sweating may increase, weakness may appear, shortness of breath, and cyanosis of the skin may occur. In asthmatics, bronchospasm may occur; there have also been cases of jaundice, changes in blood parameters - the appearance of hyperglycemia, hypokalemia, acidosis, hypervolemia.

Release form: lyophilized powder for the preparation of a solution for intravenous injection in bottles No 5, solvent in ampoules of 2 ml, No 5.
Storage conditions:

Store at a temperature not exceeding 25 °C.
Keep out of the reach of children.

Best before date

Do not use after the expiration date stated on the package.

Conditions for dispensing from pharmacies

By doctor's prescription.

Made for:
MAXX PHARM LTD.
London, Great Britain