MULTIGAMMA
Instructions
on medical use of the drug

Tradename: Multigamma.
INN: Thiamine hydrochloride + pyridoxine hydrochloride + cyanocobalamin.
Dosage form: Ampoules for intramuscular administration.
Pharmaco-therapeutic group: Vitamins.
Compound: *One ampoule contains: active ingredients:*
thiamine hydrochloride…….100 mg;
pyridoxine hydrochloride……..100 mg;
cyanocobalamin ……...1 mg;
excipients: lidocaine hydrochloride, benzyl alcohol, sodium polyphosphate, potassium hexacyanoferrate, sodium hydroxide, water for injection.

Pharmacological properties:
Pharmacodynamics:

Thiamine hydrochloride or vitamin B1 plays a key role in the metabolism of carbohydrates, as well as in the Krebs cycle with subsequent participation in the synthesis of TPP (thiamine pyrophosphate) and ATP, and is involved in the conduction of nerve impulses.

Pyridoxine a hydrochloride is involved in the metabolism of protein and partially in the metabolism of carbohydrates and fats. The physiological function of both vitamins is to potentiate each other's action, manifested in a positive effect on the neuromuscular and cardiovascular systems, and is necessary for normal hematopoiesis and the functioning of the central and peripheral nervous systems. Provides synaptic transmission, inhibition processes in the central nervous system, participates in the transport of sphingosine, which is part of the nerve sheath, and participates in the synthesis of catecholamines.

Cyanocobalamin participates in the synthesis of the myelin sheath, stimulates hematopoiesis , reduces pain associated with damage to the peripheral nervous system, stimulates nucleic metabolism through the activation of folic acid.

Lidocaine - has an anesthetic effect at the injection site, dilates blood vessels, promoting the absorption of vitamins. The local anesthetic effect of lidocaine is due to the blockade of voltage-dependent Na + channels, which prevents the generation of impulses at the endings of sensory nerves and the conduction of pain impulses along nerve fibers.

Indications for use: used as a pathogenetic and symptomatic agent as part of complex therapy for diseases and syndromes of the nervous system of various origins:
- neuralgia;
- neuritis;
- paresis of the facial nerve;
- retrobulbar neuritis;
- ganglionitis (including herpes zoster);
- plexopathy;
- neuropathy;
- polyneuropathy (diabetic, alcoholic, etc.);
- myalgia;
- night muscle cramps, especially in older age groups;
- neurological manifestations of spinal osteochondrosis: radiculopathy, lumbar ischialgia, muscular-tonic syndromes.

Method of administration and dose: *V/ m (injections are performed deep intramuscularly!).* In cases of severe pain, in order to quickly achieve a high level of the drug in the blood, it is advisable to start treatment with 2.0 ml daily for 5–10 days. Later, after the pain subsides and in mild forms of the disease, they switch to more infrequent injections (2-3 times a week for 2-3 weeks). Weekly monitoring of therapy by a physician is recommended.

Precautions:
The drug is administered exclusively intramuscularly. In case of accidental intravenous administration, medical supervision is required.
Before using lidocaine hydrochloride, it is necessary to conduct a skin test for an allergy to the drug, which is indicated by swelling and redness of the injection site. Use with caution and in smaller doses in patients with heart failure, arterial hypertension, stage I atrioventricular block, intraventricular conduction disorders, impaired liver and kidney function, epilepsy, after heart surgery, with a genetic predisposition to hyperthermia, and in weakened patients. Elderly patients, as well as those with a history of arrhythmia, should be used with caution under ECG monitoring. If a prolongation of the PQ interval, widening of the QRS complex or development of rhythm disturbance occurs, the dose should be reduced or the drug discontinued.

Pregnancy and lactation
During pregnancy and lactation, it is recommended to take daily vitamin B1 in a dose of 1.4–1.6 mg per day, vitamin B6 2.4–2.6 mg per day. Taking these doses can only be recommended if there is a deficiency of these vitamins. The safety of higher doses has not been studied.
Vitamins B1 and B6 pass into breast milk. High doses of vitamin B12 can suppress lactation. Use of the drug during pregnancy is contraindicated. If it is necessary to use the drug during breastfeeding, feeding should be discontinued.

Release form:
2 ml per ampoule, 5 ampoules per package.

Storage conditions:
Keep in a place protected from light, at a temperature of 2 – 8 °C (do not freeze), not higher than 15 °C.

Best before date:
Indicated on the packaging.

Vacation conditions
By doctor's prescription.

Made for:
MAXX PHARM LTD.
London, Great Britain