



### Treatment of Bacterial Infections of the Eye with the Help of Fortum (Ceftazidim)

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**Annotation.** The article explains the scientific significance of treating bacterial eye infections. Topical problem in ophthalmology is currently more bacterial than keratitis of cornea ulcers. It is connected with progressive increase in the incidence of this pathology.

**Key words:** Fortum, corneal, keratitis.

Ocular infections develop due to the penetration of microbial agents into the eyes. This happens under various circumstances: injury to the eye, non-observance of personal hygiene, penetration of infection from inside the body. With various eye infections, it is important to start etiotropic treatment as early as possible. The duration of laboratory research is about 5-8 days, until the results are obtained, antibiotic treatment with a wide spectrum of action is recommended. Monotherapy is allowed only when using ceftazidime.

**Fortum (ceftazidime)** -- is a third generation cephalosporin antibiotic. It has a bactericidal effect, disrupting the synthesis of the cell wall of microorganisms. A wide range of pathogens are susceptible to Fortum, including strains resistant to gentamicin and other aminoglycosides. Resistant to most lactamases of gram-positive and gram-negative bacteria.

Active against gram-negative microorganisms: *Pseudomonas* spp., incl. *Pseudomonas aeruginosa*, *Klebsiella* spp., incl. *Klebsiella pneumoniae*, *Proteus mirabilis*, *Proteus vulgaris*, *Escherichia coli*, *Enterobacter* spp. including *Enterobacter aerogenes*, *Enterobacter cloacae*, *Citrobacter* spp. including *Citrobacter diversus*, *Citrobacter freundii*, *Pasteurella multocida*, *Neisseria meningitidis*, *Haemophilus influenzae* (including ampicillin resistant strains); gram-positive microorganisms: *Staphylococcus aureus* (producing and non-producing penicillinase strains sensitive to methicillin), *Streptococcus pyogenes* (group A beta-hemolytic streptococcus), *Streptococcus agalactiae* (group B), *Streptococcus pneumoniae*; anaerobic microorganisms: *Bacteroides* spp. (many strains of *Bacteroides fragilis* are resistant). Inactive against methicillin-resistant *Staphylococcus* spp., *Streptococcus faecalis*, *Enterococcus* spp., *Listeria monocytogenes*, *Campylobacter* spp. and *Clostridium difficile*. Fortum in the form of a powder is in vials under reduced pressure. When the powder dissolves, carbon dioxide is released and the pressure in the vial rises, so small bubbles of carbon dioxide may be present in the resulting ready-made solution of the drug, which can be ignored. Resistant to the action of  $\beta$ -lactamases.

**Goal of the work** -study of microflora and clinical efficacy of Fortum (ceftazidime) in patients with various eye infections.

Our choice of Fortum as a treatment for various eye infections was due to the fact that the highest



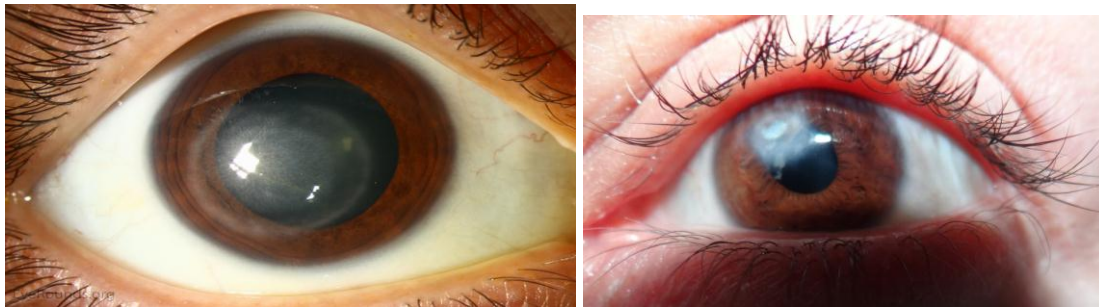
concentrations of this drug were found in the cornea (0.81 mg/kg) and anterior chamber moisture (0.39 mg/kg)

**Material and methods.** The study was conducted in 26 patients aged 12 to 56 years for 6 months in the Andijan Regional Clinical Hospital and the Eye Department of the Andi State Medical Institute. There were 10 cases of bacterial keratitis, 8 cases of keratoconjunctivitis and 8 cases of corneal ulcer.

Fortum (ceftazidime) -was prescribed as parabolbar injections 2 times a day in the morning and evening. The duration of treatment was from 6 to 12 days. Together, the patients received epithelial, anti-inflammatory, antibacterial therapy.

**Research results.** Positive results of bacteriological examination were noted in 9 patients, growth of microflora was not detected in 17 patients. In the case of a positive result, the microflora *St. epidermidis*, *St. Aureus*, *Entrococcus*, *Neisseria flava*. The most diverse microflora was sown in purulent corneal ulcers. Treatment fOrtum (ceftazidime) was effective in all patients. The timing of relief of the clinical symptoms of the disease varied depending on the clinical form and severity of the process. The patients tolerated the parabolbar injection of Fortum well. There were no side effects of the drug.

**Conclusion:** Conducted Our study allows us to conclude that the use of Fortum (ceftazidime) does not give any side effect. It contributes to the relief of the inflammatory process, does not allow the spread of infection in the surrounding environment. Bacteriological data In most cases of keratitis and corneal ulcers, the microflora was not sown, in some patients it was possible to isolate pathogens, they were sensitive to ceftazidime in 96% of cases.



After treatment with ceftazidime

#### Literature.

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