



TREATMENT OF VARIOUS POST-TRAUMATIC EYES WITH FORTUM (CEFTAZIDIME)

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Annation: 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.

Eye Infections

Introduction

Eye infections develop as a result of the penetration of microbial agents into the eye. This occurs under various circumstances: eye trauma, non-compliance with personal hygiene, or the spread of infection from within the body. For various eye infections, it is important to start etiotropic treatment as early as possible. The duration of laboratory investigations is about 5-8 days; until the results are obtained, treatment with broad-spectrum antibiotics is recommended. Monotherapy is permissible only when using ceftazidime.

Fortum (ceftazidime) is a third-generation cephalosporin antibiotic. It exerts a bactericidal effect by disrupting the synthesis of the microbial cell wall. Fortum is effective against a wide spectrum of pathogenic agents, including strains resistant to gentamicin and other aminoglycosides. It is resistant to the action of most beta-lactamases from Gram-positive and Gram-negative bacteria.

It is active against Gram-negative microorganisms: *Pseudomonas* spp., including *Pseudomonas aeruginosa*; *Klebsiella* spp., including *Klebsiella pneumoniae*; *Proteus mirabilis*, *Proteus vulgaris*, *Escherichia coli*, *Enterobacter* spp., including *Enterobacter aerogenes* and *Enterobacter cloacae*; *Citrobacter* spp., including *Citrobacter diversus* and *Citrobacter freundii*; *Pasteurella multocida*, *Neisseria meningitidis*, *Haemophilus influenzae* (including strains resistant to ampicillin); Gram-positive microorganisms: *Staphylococcus aureus* (strains producing and non-producing penicillinase, 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). It is inactive against methicillin-resistant *Staphylococcus* spp., *Streptococcus faecalis*, *Enterococcus* spp., *Listeria monocytogenes*, *Campylobacter* spp., and *Clostridium difficile*.

Fortum in powder form is contained in vials under reduced pressure. Upon dissolution of the powder, carbon dioxide is released, and the pressure in the vial increases; therefore, the prepared solution of the drug may contain small bubbles of carbon dioxide, which can be disregarded. It is resistant to the action of β -lactamases.

Purpose of the Study



To study the microflora and clinical efficacy of the drug 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 fluid (0.39 mg/kg).

Materials and Methods

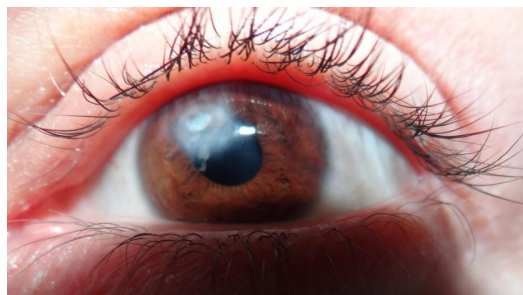
The study was conducted on 26 patients aged 12 to 56 years over a period of 6 months at the Andijan Regional Clinical Hospital and the eye department of Andijan State Medical Institute. Post-traumatic bacterial keratitis was noted in 10 cases, keratoconjunctivitis in 8 cases, and corneal ulcers in 8 cases. Bacteriological examination of the contents of the conjunctival cavity was performed on the patients to determine the type of pathogen and its sensitivity to antibiotics. Fortum (ceftazidime) was administered in the form of parabulbar injections twice daily, morning and evening. The treatment duration ranged from 6 to 12 days. In addition, patients received epithelializing, anti-inflammatory, and antibacterial therapy.

Research Results

Positive results of bacteriological examination were noted in 9 patients, while microbial growth was not detected in 17 patients. In cases of positive results, the microflora identified included *St. epidermidis*, *St. aureus*, *Enterococcus*, and *Neisseria flava*. The most diverse microflora was isolated in purulent corneal ulcers. Treatment with Fortum (ceftazidime) was effective in all patients. The timing of resolution of clinical symptoms varied depending on the clinical form and severity of the process. Patients tolerated parabulbar injections of Fortum well. No side effects of the drug occurred.

Conclusion

The study we conducted allows us to conclude that the use of Fortum (ceftazidime) does not cause any side effects. It contributes to the resolution of the inflammatory process and prevents the spread of infection to adjacent tissues. Bacteriological studies in the majority of cases of keratitis and corneal ulcers did not yield microflora; in some patients, pathogens were isolated, and they were sensitive to ceftazidime in 96% of cases.



After Treatment with Ceftazidime



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