MOXIGET™

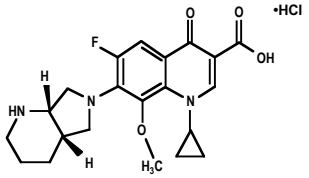
(Moxifloxacin)

موکسیگیٹ

Tablets 400mg

DESCRIPTION

MOXIGET (Moxifloxacin) is a new oral 8-methoxyfluroquinolone antibacterial agent. Chemically, moxifloxacin is a monohydrate salt of 1-cyclopropyl-7-[(S, S)-2, 8-diazabicyclo [4.3.0] non-8-yl]-6-flouro-8-methoxy-1, 4-dihydro-4-oxo-3 quinolone carboxylic acid. The molecular formula is $C_{21}H_{24}FN_3O_4$•HCl and the structural formula is:



Moxifloxacin HCl

QUALITATIVE & QUANTITATIVE COMPOSITION

MOXIGET (Moxifloxacin) is available for oral administration as:

MOXIGET Tablets 400mg
Each film-coated tablet contains:
Moxifloxacin…400mg
(as hydrochloride)

CLINICAL PHARMACOLOGY

Mechanism of Action

Moxifloxacin is bactericidal against a range of Gram-positive and Gram-negative organisms. Such activity arises through the inhibition of DNA gyrase (topoisomerase II) and topoisomerase IV, which bacteria require for DNA replication, transcription, repair, and recombination. Moxifloxacin contains the C8-methoxy moiety that augments its antibacterial activity and reduces the possibility of Gram-positive mutations. Because the 8-fluroquinolones use a different mechanism of action than do the aminoglycosides, beta-lactams, macrolides, or tetracyclines, there has been no cross resistance between the quinolones and these antimicrobial agents.

Microbiology:

Aerobic Gram-positive micro-organisms:
Staphylococcus aureus (methicillin-susceptible)
Streptococcus pneumoniae, *Streptococcus pyogenes*
Streptococcus epidermidis (methicillin-susceptible)
Streptococcus anginosus

Aerobic Gram-negative micro-organisms:
Haemophilus influenzae
Haemophilus parainfluenzae
Klebsiella pneumoniae
Moraxella catarrhalis
Enterobacter cloacae
Escherichia coli
Proteus mirabilis

Anaerobic micro-organisms:
Fusobacterium species
Prevotella species
Peptostreptococcus species

Others:
Chlamydia pneumoniae
Mycoplasma pneumoniae
Legionella pneumophila
Mycobacterium leprae

Pharmacokinetics

Moxifloxacin is readily absorbed from the gastrointestinal tract with an absolute bioavailability of about 90%. It is widely distributed throughout the body tissues and is approximately 50% bound to plasma proteins. Moxifloxacin has an elimination half life of approximately 12 hours, allowing once daily dosing. It is metabolised principally via sulphate and glucuronide conjugation. About 45% of the drug is excreted in the urine and the feces as unchanged drug. The sulphate conjugate is excreted primarily in the feces and the glucuronide exclusively in the urine.

THERAPEUTIC INDICATIONS

MOXIGET (Moxifloxacin) tablets are indicated for the treatment of following bacterial infections:

- Acute bacterial sinusitis.
- Acute bacterial exacerbation of chronic bronchitis.
- Community acquired pneumonia.
- Complicated skin and skin structure infections.

DOSAGE AND ADMINISTRATION

The usual adult dose of MOXIGET (Moxifloxacin) is 400mg once every 24 hours. The duration of therapy depends on the type and severity of infection as described in the table below.

Infection	Daily Dose	Duration
Acute bacterial sinusitis	400mg	7 days
Acute bacterial exacerbation of chronic bronchitis	400mg	5-10 days
Community acquired pneumonia	400mg	10 days
Complicated skin and skin structure infections	400mg	7 – 21 days

ADVERSE REACTIONS

Moxifloxacin was usually well tolerated. Most adverse reactions were mild to moderate.

Common:

Headache, dizziness, abdominal pain, nausea, vomiting, QT prolongation in patients with hypokalemia, increase in transaminases, superinfection due to resistant bacteria and diarrhea.

Uncommon:

Anorexia, constipation, dyspepsia, flatulence, gastritis, increase amylase, QT prolongation, palpitations, tachycardia, artrial fibrillation, angina pectoris, dyspnea, hepatic impairment, increased bilirubin, increase gamma glutarryl transferase, increase in blood alkaline phosphatase, pruritis, rash, urticaria, dry skin, arthralgia, myalgia, dehydration, visual disturbances, anxiety reactions, psychomotor hyperactivity, taste disorder, paresthesia/dysesthesia, confusion, disorientation, hyperlipidemia, allergic reaction, anemia, leucopenia, neutropenia and thrombocytopenia.

Rare:

Dysphagia, pseudomembranous colitis, ventricular tachyarrhythmias, syncope, hypertension, hypotension, vasodilatation, tinnitus, hypoesthesia, smell disorder, abnormal dreams, disturbed coordination, seizures, disturbed attention, speech disorders, amnesia, anaphylaxis, allergic edema/angioedema, hyperglycemia, hyperuricemia, emotional liability, depression, hallucination and prothrombin time prolonged.

CONTRAINDICATIONS

Moxifloxacin is contraindicated in patients:

- With hypersensitivity to moxifloxacin or other quinolones and any components of this medication.
- Less than 18 years of age.
- Pregnancy and lactation.
- With history of tendon disease/disorder related to quinolone treatment.

– With impaired liver function and in patients with transaminases >5 fold ULN.
– With congenital or documented acquired QT prolongation.
– With electrolyte disturbances, particularly in uncorrected hypokalemia.
– With clinically relevant bradycardia.
– With clinically relevant heart failure with reduced left-ventricular ejection fraction.
– With previous history of symptomatic arrhythmias.
– Receiving Class IA (e.g., quinidine, procainamide) or Class III (amiodarone, sotalol) antiarrhythmic agents or other drugs that prolong the QT interval.
– With rare hereditary problems of galactose intolerance, the Lapp lactase deficiency or glucose-galactose malabsorption should not take this medicine.

WARNING

Fluoroquinolones, including moxifloxacin are associated with an increased risk of tendinitis and tendon rupture in all ages. This risk is further increased in older patients usually over 60 years of age, in patients taking corticosteroid drugs, and in patients with kidney, heart or lung transplants.

PRECAUTIONS

– Moxifloxacin should be used with caution in patients with ongoing proarrhythmic conditions (especially women and elderly patients), such as acute myocardial ischemia or QT prolongation as this may lead to an increased risk for ventricular arrhythmias and cardiac arrest. The magnitude of QT prolongation may increase with increasing concentrations of the drug. Therefore, the recommended dose should not be exceeded.
  If signs of cardiac arrhythmia occur during treatment with Moxifloxacin, treatment should be stopped and an ECG should be performed.
– Cases of bullous skin reactions like Stevens-Johnson syndrome or toxic epidermal necrolysis have been reported with Moxifloxacin. Patients should be advised to contact their doctor immediately prior to continuing treatment if skin and/or mucosal reactions occur.
– Psychiatric reactions may occur even after the first administration of quinolones, including Moxifloxacin. In very rare cases depression or psychotic reactions have progressed to suicidal thoughts and self-injurious behavior such as suicide attempts. In the event that the patient develops these reactions, Moxifloxacin should be discontinued and appropriate measures instituted. Caution is recommended if Moxifloxacin is to be used in psychotic patients or in patients with history of psychiatric disease.
– Quinolones have been shown to cause photosensitivity reactions in patients. However, studies have shown that Moxifloxacin has a lower risk to induce photosensitivity. Nevertheless patients should be advised to avoid exposure to either UV irradiation or extensive and/or strong sunlight during treatment with Moxifloxacin.
– Due to adverse effects on the cartilage in juvenile animals the use of Moxifloxacin in children and adolescents < 18 years is contraindicated.
– As with all quinolones, moxifloxacin should be used with caution in patients with known or suspected CNS disorders or in the presence of other risk factors that may predispose to seizures or lower the threshold.
– Tendon inflammation and/or rupture have been reported with quinolone antibiotics. Risk may be increased with concurrent corticosteroids, particularly in the elderly. Discontinue at first signs or symptoms of tendon pain.
– Use with caution in diabetes as glucose regulation may be altered.
– Patients with a family history of, or actual glucose-6-phosphate dehydrogenase deficiency are prone to hemolytic reactions when treated with quinolones. Therefore, moxifloxacin should be used with caution in these patients.
– Severe hypersensitivity reactions, including anaphylaxis, have occurred with quinolone therapy. If an allergic reaction occurs discontinue drug immediately.
– Quinolones should be used with caution as they may exacerbate myasthenia gravis.
– Peripheral neuropathy may rarely occur.
– Elderly patients with renal disorders should use moxifloxacin with caution if they are unable to maintain adequate fluid intake, because dehydration may increase the risk of renal failure.
– Liver function tests/investigations should be performed in cases where indications of liver dysfunction occur.
– If vision becomes impaired or any effects on the eyes are experienced, an eye specialist should be consulted immediately.

Drug Interactions

– Moxifloxacin should be taken at least 4 hours before or 8 hours after *antacids* containing *magnesium, calcium* or *aluminium*, as well as *sucralfate, metal cations* such as *iron,* and *multivitamin preparations with zinc or didanosine*.
– Medication that can reduce potassium levels should be used with caution in patients receiving moxifloxacin.
– Concomitant administration of *charcoal* with an oral dose of 400mg moxifloxacin leads to a pronounced prevention of drug absorption and a reduced systemic availability of the drug by more than 80%. Therefore, the concomitant use of these two drugs is not recommended (except for overdose cases).
– The prothrombin time, International Normalized Ratio (INR), or other suitable anticoagulation tests should be closely monitored if a quinolone is administered concomitantly with *warfarin* or its *derivatives*.
– Concomitant administration of *NSAIDs* with quinolones may increase the risks of CNS stimulation and convulsions.

OVERDOSAGE

No specific countermeasures after accidental overdose are recommended. In the event of overdose, symptomatic treatment should be implemented. ECG monitoring should be undertaken, because of the possibility of QT interval prolongation. Concomitant administration of charcoal with a dose of 400 mg oral Moxifloxacin will reduce systemic availability of the drug by more than 80%. The use of charcoal early during absorption may be useful to prevent excessive increase in the systemic exposure to Moxifloxacin in cases of oral overdose.

STORAGE

Store at 25°C (Excursions permitted between 15°C - 30°C). Protect from sunlight and moisture.
The expiration date refers to the product correctly stored at the required conditions.

HOW SUPPLIED

MOXIGET (Moxifloxacin) Tablets 400mg are available in blister pack of 5's.

Keep out of reach of children.

To be sold on prescription of a registered medical practitioner only.

Please read the contents carefully before use.
This package insert is continually updated from time to time.

Manufactured by:

Getz pharma (PVT) LIMITED
www.getzpharma.com
29-30/27, K.I.A., Karachi, Pakistan

L01-200007177