TWIG®

400mg Tablets

[Moxifloxacin]

ٹوِگ گولیاں

DESCRIPTION:

TWIG (Moxifloxacin) is a synthetic fluroquinolone antibacterial agent, available as the monohydrochloride salt.

QUALITATIVE AND QUANTITATIVE COMPOSITION:

TWIG (Moxifloxacin) is available for oral administration as:

TWIG 400mg Tablets

Each film coated tablet contains:

Moxifloxacin as Moxifloxacin HCl USP.....400mg

(Product Specs.: USP)

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) and *Streptococcus anginosus.*

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

Anaerobic micro-organisms: *Fusobacterium* species, *Prevotella* species and *Peptostreptococcus* species.

Others: *Chlamydia pneumoniae, Mycoplasma pneumoniae, Legionella pneumophila and 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.

Special Population:

Renal Impairment: No dosage adjustment is required in patients with any degree of renal impairment.

Hepatic Impairment: No dosage adjustment is required in patients with slightly impaired liver function.

THERAPEUTIC INDICATIONS:

TWIG (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 **TWIG** (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. **TWIG** Tablet can be taken independent of food intake.

Infections	Daily Dosage	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

CONTRAINDICATIONS:

Moxifloxacin is contraindicated in patients:

- With hypersensitivity to moxifloxacin or other quinolones and any component of this medication.
- Less than 18 years old age.
- 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 malabsorpsion should not take this medicine.

PRECAUTIONS:

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 corticostriod drugs, and in patients with kidney, heart or lung transplants. MOXIFLOXACIN should be discontinued if the patient experiences pain, swelling, inflammation or rupture of a tendon. Patients should be advised to rest at the first sign of tendinitis or tendon rupture, and to contact their healthcare provider regarding changing to a non-quinolone.

Use **TWIG** 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, Psychotic patients or in patients with history of psychiatric disease, Patients with known or suspected CNS disorders or in the presence of other risk factors that may predispose to seizures, diabetes as glucose regulation may be altered, Patients with a family history of, or actual glucose-6-phosphate dehydrogenase deficiency as they are prone to hemolytic reactions, Patients with myasthenia gravis because the symptoms can be exacerbated, Patients with renal disorders if they are unable to maintain adequate fluid intake because dehydration may increase the risk of renal failure.

Discontinued **TWIG** if;

- Signs of cardiac arrhythmias occur during treatment with **TWIG**, Depression or psychotic reactions have progressed to suicidal thoughts and self-injurious behavior such as suicide attempts, Severe hypersensitivity reactions; including anaphylaxis.
- Cases of bullous skins 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.
- Quinolones have been shown to cause photosensitivity reactions. Patients should be advised to avoid exposure to either UV irradiation or extensive and/or strong sunlight during treatment with moxifloxacin.
- Patients under treatment with moxifloxacin should be advised to inform their doctor prior to continuing treatment with **TWIG** if symptoms of neuropathy such as pain, burning, tingling, numbness, or weakness develop in order to prevent the development of potentially irreversible condition.
- 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.

Pregnancy and Lactation:

TWIG is contraindicated in pregnancy and lactation.

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 reduce 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.

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, super infection due to resistant bacteria and diarrhea.

Uncommon: Anorexia, constipation, dyspepsia, flatulence, gastritis, increase amylase, QT prolongation, palpitations, tachycardia, angina pectoris, dyspnea, hepatic impairment, pruritus, rash, urticaria, dry skin, arthralgia, myalgia, dehydration, visual disturbances, anxiety reactions, taste disorders, paresthesia/ dysesthesia, hyperlipidemia, anemia, leucopenia, neutropenia and thrombocytopenia.

Rare: Dysphagia, pseudomembranous colitis, ventricular tachyarrhythmias, syncope, hypertension, hypotension, vasodilation, tinnitus, seizures, disturbed attention, speech disorders, anaphylaxis, allergic edema, hyperglycemia, hyperuricemia, depression, hallucination and prothrombin time prolongation.

OVERDOSE:

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 400mg oral moxifloxacin will reduce systemic availability of the drug. The use of charcoal early during absorption may be useful to prevent excessive increase in the systemic exposure to moxifloxacin.

INSTRUCTIONS:

- Store below 30°C.
- Protect from light & moisture.
- Keep out of reach of children.

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

HOW SUPPLIED:

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

خوراک: ڈاکٹر کی ہدایت کے مطابق استعمال کریں۔

ہدایات: دوا کو ۳۰ ڈگری سینٹی گریڈ سے کم درجہ حرارت پر رکھیں۔

روشنی اور نمی سے بچائیں۔ بچوں کی پہنچ سے دور رکھیں۔

اعتباہ: صرف رجسٹرڈ ڈاکٹر کے نسخے کے مطابق فروخت کریں۔

SIGMA PHARMA

Manufactured by:
SIGMA PHARMA
International (Pvt.) Ltd.
www.sigmapharma.com.pk

E-50, North Western
Industrial Zone,
Port Qasim Authority,
Karachi, Pakistan.