FYSIQ-MR

Each tablet contains Aceclofenac 100 mg, Paracetamol 325 mg and Chlorzoxazone 500 mg.

Description:
Aceclofenac + Paracetamol + Chlorzoxazone tablets are used in the treatment of muscular pain. The medicine is composed of three different active ingredients, Aceclofenac, Paracetamol, and Chlorzoxazone. Aceclofenac and Paracetamol are pain-relieving drugs and Chlorzoxazone is a muscle relaxant. The pain-relieving drugs work by inhibiting the release of certain chemical messengers in the brain that cause pain and inflammation (redness and swelling). The muscle relaxant works on the centers in the brain and spinal cord to relieve muscle stiffness or spasm, thereby improving muscle movement.

Paracetamol Uses:
Paracetamol has an analgesic (pain killer) and antipyretic (reduce fever) property. It produces analgesia by blocking chemical messengers in the brain that causes pain and show antipyretic activity by acting on the hypothalamus (a gland present in the brain and is responsible for regulating the body temperature).

Aceclofenac Uses:
Aceclofenac mainly works by inhibiting cyclooxygenase enzymes both (COX-1 and COX-2) which promote the secretion of prostaglandins. Prostaglandins are the chemical substances released by the body and promotes inflammation, pain (mild to moderate) and fever.

Chlorzoxazone Uses:
Chlorzoxazone is a centrally acting agent, although its exact mode of action has not been clearly identified. Experimental data suggest that the primary site of action is the spinal cord, where it inhibits polysynaptic reflex pathways that are involved in the production of increased tone. Chlorzoxazone is indicated for short-term treatment of muscle spasm associated with acute, painful musculoskeletal conditions. Spasticity due to CNS disease is not relieved by this agent.

Dosage Form and Strength Dosage Form:

Tablets

Dosage Strength: Aceclofenac 100 mg, paracetamol 325 mg, and chlorzoxazone 500 mg per tablet.

Clinical Particulars

Therapeutic Indication

FYSIQ-AP Tablets are indicated for the relief of acute, painful musculoskeletal disorders with associated skeletal muscle spasm.

Posology and Method of Administration

For oral administration.

Adults: Usual dose is 1 tablet to be administered twice daily. FYSIQ-AP Tablets should be preferably administered with or after food. The tablet should be swallowed whole with water.

- The maximum recommended dose of aceclofenac is 200 mg daily in divided doses.
- The maximum recommended dose of paracetamol is 4 g daily in divided doses.
- Maximum dosage of chlorzoxazone is 3,000 mg per day in divided doses. Or, as prescribed by the physician.

Contraindications

FYSIQ-AP Tablets are contraindicated in the following:

- Known hypersensitivity to aceclofenac or to paracetamol or to chlorzoxazone or to any component of the formulation.
- Active or history of recurrent peptic ulcer, bleeding or bleeding disorders.
- History of gastrointestinal (GI) bleeding or perforation, relating to previous NSAID therapy.
- Severe heart failure, hepatic failure and renal failure.
- Patients with established congestive heart failure (NYHA class II-IV), ischemic heart disease, peripheral arterial disease and/or cerebrovascular disease.
- During the last trimester of pregnancy.
- Patients in whom attacks of asthma, urticaria, or acute rhinitis are precipitated by aspirin or other NSAIDs.
- Known intolerance to chlorzoxazone.

Pharmacological Properties

Mechanism of Action:

Aceclofenac: The mode of action of aceclofenac is largely based on the inhibition to prostaglandin synthesis. Aceclofenac is a potent inhibitor of the enzyme cyclooxygenase (COX). COX enzymes are involved in conversion of arachidonic acid into prostaglandin (PGs). Prostaglandins are usually responsible for causing pain, inflammation, and fever. Aceclofenac blocks the enzyme COX and thereby inhibit PGs synthesis, thus, produces analgesic and anti-inflammatory effects.

Paracetamol

Analgesic Effect: The mechanism of analgesic action of paracetamol has not been fully determined. Paracetamol may act predominantly by inhibiting prostaglandin synthesis in the central nervous system (CNS) and to a lesser extent, through a peripheral action by blocking pain impulse generation. The

peripheral action may also be due to inhibition of prostaglandin synthesis or inhibition of the synthesis or actions of other substances that sensitise pain receptors to mechanical or chemical stimulation.

Antipyretic Effect:

Paracetamol produces antipyretic effect by acting centrally on the hypothalamic heat-regulation center to produce peripheral vasodilation resulting in increased blood flow through the skin, sweating and heat loss. The central action involves inhibition of prostaglandin synthesis in the hypothalamus.

Chlorzoxazone acts primarily at the level of the spinal cord and subcortical areas of the brain where it inhibits multisynaptic reflex arcs involved in producing and maintaining skeletal muscle spasm of varied etiology. The clinical result is a reduction of the skeletal muscle spasm with relief of pain and increased mobility of the involved muscles. Pain relief is postulated to be due to alterations in the perception of pain. Chlorzoxazone is not associated with significant anticholinergic effects.

Pharmacodynamic Properties

Aceclofenac is a non-steroidal anti-inflammatory drug (NSAID) with marked analgesic and anti-inflammatory properties.

Paracetamol is a centrally acting analgesic and antipyretic agent.

Chlorzoxazone is a centrally-acting skeletal muscle relaxant with sedative properties; it is used for the symptomatic treatment of painful muscle spasm.

Pharmacokinetic Properties

Aceclofenac

After oral administration, aceclofenac is rapidly and completely absorbed as unchanged drug. Peak plasma concentrations are reached approximately 1.25 to 3.00 hours following ingestion. Aceclofenac penetrates into the synovial fluid, where the concentrations reach approximately 57% of those in plasma. The volume of distribution is approximately 25 liters. Aceclofenac circulates mainly as unchanged drug. The main metabolite detected in plasma is 4'- hydroxyaceclofenac.

Paracetamol is readily absorbed from the GI tract with peak plasma concentrations occurring about 30 minutes to 2 hours after ingestion. Paracetamol is metabolized in the liver and excreted in the urine mainly as the glucuronide and sulphate conjugates. Less than 5% is excreted as unchanged paracetamol. The elimination half-life varies from about 1 to 4 hours.

Chlorzoxazone

Absorption of chlorzoxazone from the gastrointestinal tract is rapid and complete. Blood levels of chlorzoxazone can be detected in humans during the first 30 minutes and peak levels occur approximately 1 to 2 hours after oral administration. Chlorzoxazone is well distributed, with the highest concentrations found in plasma and fat, and lower concentrations found in the liver, muscle, brain and kidneys. Less than 1% of a dose of chlorzoxazone is excreted unchanged in the urine in 24 hours; 74% of the metabolite is excreted within 10 hours. The elimination half-life of chlorzoxazone is about 1 hour.