Summary of Product Characteristics for Pharmaceutical Products

1. Name of the medicinal product:

Spasmorid tablets 80mg

2. Qualitative and quantitative composition

Each tablet contains Drotaverine hydrochloride 80mg

Excipients of known effect

lactose

For the full list of excipients see section 6.1.

3. Pharmaceutical form

Uncoated tablet

Light yellow colour, biconvex, round shaped plain on both sides.

4. Clinical particulars

4.1 Therapeutic indications

Smooth muscle spasms associated with gallbladder and biliary tract disease: cholelithiasis, cholangiolithiasis, cholecystitis, cholangitis, peri cholecystitis, papillitis (inflammation of the papilla). Renal and urinary smooth muscle spasms: nephrolithiasis, ureterolithiasis, pyelitis, cystitis, vesical tenesmus.

Adjuvant treatment for: Spastic conditions of the gastrointestinal tract: gastric and duodenal ulcers, gastritis, cardiac and pyloric spasms, enteritis, colitis, spastic colitis with constipation and flatulence in irritable bowel syndrome. Tension headache Gynecological disorders - dysmenorrhea.

4.2 Posology and method of administration

Posology

Adult: 1 to 2 tablets, three times a day.

Children (over 6 years): ½ or 1 tablet, 1 - 2 times daily.

Children (1-6 years): ¼ or ½ tablet, 1-2 times daily.

Method of administration

Oral tablets

4.3 Contraindications

Hypersensitivity to drotaverine or any of the ingredients listed in section 6.1

Pre-existing renal disease or hepatic failure

Neonates.

4.4 Special warnings and precautions for use

-In case of hypotension the administration of this drug needs increased caution.

-Due to the presence of lactose, patients with rare hereditary problems of galactose intolerance, the Lapp lactase deficiency or glucose-galactose malabsorption should not take this medicine.

4.5 Interaction with other medicinal products and other forms of interaction

Drotaverine intensifies the effect of other spasmolytics, hypotension caused by tricyclic antidepressants, quinidine and novocainamide Reduces spasmogenic morphine activity, antiparkinsonian levodopa activity. When administered together with levodopa it decreases its antiparkinsonian effect, rigidity and tremor increase. Concurrent use of analgesics, antimuscarinics or benzodiazepines has additive beneficial effects.

4.6 Pregnancy and Lactation

Pregnancy

There is no evidence of teratogenicity and embryotoxicity from retrospective human and animal studies by oral route. Nevertheless, caution should be taken when prescribed during pregnancy.

Lactation

There are no adequate data on the use of Drotaverine in lactation women, this medicine should not recommended for prescribing in these subjects.

4.7 Effects on ability to drive and use machines

- DROTAVERINE causes dizziness. Do not drive or operate machinery unless you are alert.

4.8 Undesirable effects

The following side effects are classified according to system organ class and are based on frequency: very common (≥ 1/10), uncommon (≥ 1/100 to <1/100), rare (1/10,000 to <1/1,000), very rare (<1/10,000), unknown (from available data).

Gastrointestinal disorders

Rare: nausea, constipation.

Nervous system disorders

Rare: headache, vertigo, insomnia.

Heart and heart disorders

Rare: palpitations, hypotension.

Immune system disorders

Rare: allergic reactions (angioedema, urticaria, rash, pruritus).

Reporting suspected adverse reactions after marketing authorization is important. It allows continuous monitoring of the benefit-risk balance of the drug. Health professionals are required to report any suspected adverse reactions at https://pv.pharmacyboardkenya.org

4.9 Overdose

Symptoms

Drotaverine overdose has been associated with heart rhythm and conduction disturbances, including complete blockage of the Tawar arms and cardiac arrest, which can be fatal.

Treatment

In the event of an overdose, the patient should be closely monitored. Treatment should be symptomatic and supportive. Suggested measures include emesis and/or gastric lavage.

5. Pharmacological properties

5.1 Pharmacodynamic properties

Pharmacotherapeutic group

Drugs for functional gastrointestinal disorders; papaverine and derivatives; ATC code: A03AD02.

Mechanism of action

Drotaverine is an isoquinoline derivative whose significant antispasmodic effect is inhibition of phosphodiesterase IV (PDE IV). PDE IV is the enzyme responsible for the hydrolysis of cAMP to AMP. Inhibition of this enzyme leads to an increased concentration of cAMP, triggering a whole cascade of mechanisms as described below. High concentrations of cAMP activate cAMP-dependent protein kinase phosphorylating myosin light chain kinase (MLCK). Phosphorylation of MLCK leads to a decrease in its affinity for the Ca 2+ -calmodulin complex and the inactive form of MLCK keeps the muscle in a state of relaxation. cAMP also affects the concentration of cytoplasmic Ca 2+by stimulating the transport of calcium ions into the extracellular space and into the sarcoplasmic reticulum. This decrease in the concentration of calcium ions in the cytoplasm by cAMP explains its antagonistic effects on calcium.

In vitro, it inhibits drotaverine PDE IV but not the PDE III and PDE V isoenzymes. PDE IV appears to be an enzyme responsible for reducing smooth muscle contractility, suggesting that selective PDE IV inhibitors may be effective in the treatment of hypermotility and many diseases associated with spastic conditions. gastrointestinal tract.

The enzyme responsible for the hydrolysis of cAMP in cardiovascular muscle is primarily PDE III, which explains why drotaverine is an effective antispasmodic without a therapeutic effect on the cardiovascular system and serious cardiovascular side effects.

5.2 Pharmacokinetic properties

Absorption

In humans, peak plasma concentrations of drotaverine are reached after approximately 45-60 minutes, indicating rapid absorption of drotaverine. A dose of 37 mg of drotaverine was

administered orally in 20 ml of aqueous solution. Based on radioactivity measurements, almost complete absorption was found. The maximum plasma concentration is reached 45 — 90 min after administration, the absorption half-life is 12 min. Following oral administration of 80 mg drotaverine hydrochloride, peak plasma concentrations (136 — 320 ng / ml) are reached after 2 h.

Distribution
Drotaverine and / or its metabolites hardly cross the placental barrier. In vitro , drotaverine is highly bound (95-98%) to plasma proteins, primarily albumin, γ- and β-globulins, and α- (HDL) - lipoproteins.

Biotransformation
Drotaverine is almost completely metabolized by O-deethylation to monophenolic compounds. These metabolites are rapidly conjugated to glucuronic acid. The major metabolite is 4'-deethyldrotaverine. 6'- deethyldrotaverine and 4'-deethyldrotaverine were also found. Drotaverine undergoes hepatic first-pass metabolism in humans and only 65% of the dose enters the systemic circulation unchanged. A 2-compartment model was used to determine pharmacokinetic parameters in humans.

Elimination
The terminal elimination half-life of drotaverine is 16 — 22 hours. During 168 hours after i. in. approximately 41-45% is excreted in the urine, 31-36% in the feces. Another study found that 54-73% of drotaverine was excreted in the urine and only 10-32% in the feces.

5.3 Preclinical safety data

Preclinical data reveal no special hazard for humans based on conventional studies of safety pharmacology, genotoxicity and toxicity to reproduction: Based on in vitro and in vivo studies, drotaverine did not induce a delay in ventricular repolarization. Drotaverine was deprived of genotoxic potential in a range of in vitro and in vivo mutagenicity studies, i. j. in the Ames test, in the mouse lymphoma test and in the rat micronucleus test. Drotaverine does not affect rat fertility or embryonal / fetal development in rats and rabbits.
Acute toxicity The results obtained in the experiments on albino mice are summarized in the following table:

Table 1: Acute toxicity

Compound	LD_{50} (mg / kg)		
papaverine	31.0	290.0	> 2,000

perparín	27.0	> 1,000	> 3,000
drotaverine (isodihydroperparin)	19.0	95.0	1,000

The table shows that the largest difference between the acute toxicity of the monitored isoquinoline derivatives is in the case of subcutaneous administration, this is probably due to the easier absorption of hydrated derivatives.

Chronic toxicity and teratogenicity
Drotaverine was administered orally at doses of 8-16 mg / kg for four months to dogs and rats, the animals were each divided into two groups. None of the animals showed any abnormalities during the study. Histological evaluation at the end of the study showed no evidence of toxicity. When drotaverine was administered to pregnant female rats, they gave birth to normal pups at the usual time.
In another study, drotaverine was administered orally in 6 repeated doses of 10 mg / kg / day between days 7 and 12 in pregnant female F1-generation inbred R-Amsterdam rats without adverse effects on the fetus; no case of death or malformation was identified.
These data suggest that drotaverine has no teratogenic or embryotoxic effects.

Drotaverine has also been studied for embryotoxicity and teratogenicity in albino Wistar rats and guinea pigs. No differences were found compared to the control group of animals not given drotaverine. The number of births remained normal and no malformations were found; these data are also valid for the second generation of these experimental animals and therefore drotaverine can be considered safe in terms of embryotoxicity and teratogenicity in animals.
Other results obtained in rats are also in agreement with the above data.

6. Pharmaceutical Particulars

6.1 List of Excipients

Microcrystalline Cellulose
Lactose
Maize Starch
Povidone (As PVPK-30)
Colour Tartrazine Supra
Magnesium Stearate
Purified Talc
Sodium Starch Glycollate
Crospovidone
Colloidal Anhydrous Silica
Polacrilin Potassium (As Kyron-T-314)

Purified Water

6.2 Incompatibilities

Not applicable

6.3 Shelf-Life

36 months

6.4 Special Precautions for storage

Stored at a temperature not exceeding 30ºC, in a cool and dark place, protect from direct sunlight.

6.5 Nature and Content of container

3 x 10 pack: 10 tablets packed in alu-alu blister and such 3 blisters are packed in single carton along with pack insert

6.6 Special precautions for disposal and other handling

Any unused medicinal product or waste material should be disposed of in accordance with local requirements.

7. Marketing Authorization Holder

GALAXY PHARMACEUTICAL LTD.
1st Floor, Doctors Park, 3rd Parkland Avenue,
P.O.BOX 39107 - 00623, Nairobi (Kenya).

8. Marketing Authorization Number

CTD10091

9. Date of first authorization/renewal of the authorization

30/05/2024

10. Date of revision of the text

8/5/2025