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For the use of a Registered Medical Practitioner or a Hospital or a Laboratory only.

DOMSTAL MPS

(Domperidone And Activated Polydimethylsiloxane Chewable Tablets)

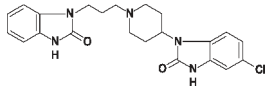
COMPOSITION

Each uncoated chewable tablet contains :
Domperidone I.P. 10 mg
Activated Dimethicone I.P. 125 mg
(Activated Polydimethylsiloxane I.P.)
Colour : Lake of Quinoline Yellow

PROPERTIES

Domperidone

Domperidone is a white or almost white powder. Chemically domperidone is identified as 5-chloro-1-[1-[3-(2-oxo-2,3-dihydro-1*H*-benzimidazol-1-ylpropyl]piperidin-4-yl]-1,3-dihydro-2*H*-benzimidazol-2-one. It has following structure:



The empirical formula is $C_{22}H_{24}ClN_5O_2$, representing molecular weight 425.9

CLINICAL PHARMACOLOGY

PHARMACODYNAMICS

It is a peripheral dopamine-2 receptor antagonist. It regulates the motility of gastric and small intestinal smooth muscle. Domperidone increases the frequency, amplitude and duration of oesophageal and duodenal contractions and reduces gastric and small bowel transit time. Domperidone increases the resting lower esophageal sphincter pressure. Studies have confirmed this observation in Gastrooesophageal reflux disease. Antiemetic activity is due to the blockade of dopamine receptors in the chemoreceptor trigger zone. Because very little Domperidone crosses the blood-brain barrier, reports of central nervous system adverse effects, such as dystonic reactions, are rare. It may however stimulate prolactin release.

Activated Polydimethylsiloxane acts as an antiflatulent agent to prevent and control excessive production of gas. It is shown to lower surface tension and when administered by mouth causes bubbles of gas in the gastro-intestinal tract to coalesce, thus aiding their dispersion. Thus, it is promoted for the relief of flatulence & abdominal discomfort due to excess gastro-intestinal gas.

PHARMACOKINETICS

Absorption

Domperidone is rapidly and almost completely (93%) absorbed from gastro-intestinal tract and reaches its peak within 30 minutes.

Domperidone is bioavailable to an extent of 13-17% after oral administration, due to its extensive first-pass gut and hepatic metabolism.

Distribution

Oral domperidone does not appear to accumulate or to induce its own metabolism; a peak plasma level after 90 minutes of 21 ng/ml after two weeks oral administration of 30mg per day was almost the same as that of 18 ng/ml after the first dose. Domperidone is 91-93% bound to plasma proteins.

Metabolism

Domperidone undergoes rapid and extensive biotransformation by hydroxylation and oxidative N-dealkylation in liver and gut wall.

Excretion

1.4% of the administered Domperidone is excreted unchanged in urine while 10% is excreted in feces; rest is excreted mainly as a glucuronide conjugate in urine. The plasma half-life of Domperidone is 7.5 hours.

Special populations

Renal Impairment

The plasma half-life of Domperidone may increase up to 20.8 hours in patients with renal failure. However, the contribution of renal clearance to total plasma clearance of Domperidone is so small that accumulation of Domperidone should not occur.

Though care must be observed in patients having renal impairment.

Hepatic Impairment

Domperidone gets metabolized in liver, hence in patients with hepatic impairment, plasma concentration might increase.

INDICATIONS

Nausea and Vomiting

a. Prevention and symptomatic relief from nausea and vomiting of central or local origin.
b. Prevention of cytotoxic therapy, radio therapy and chemotherapy induced vomiting.
c. Nausea and vomiting associated with L-dopa, bromocriptine and anti-inflammatory drugs.
d. Migraine induced vomiting

Motility

a. Functional dyspepsia, chronic non-ulcer dyspepsia and postprandial dyspepsia
b. Gastritis
c. Irritable bowel syndrome
d. Post vagotomy gastric stasis

Reflux diseases

Gastro esophageal reflux disorder (GERD) and chronic gastritis.

Diagnostic procedure

Facilitates radiological examination of the upper gastrointestinal tract.

CONTRAINDICATIONS

a. Conditions associated with rise in prolactin level (prolactinoma).
b. Conditions like gastro-intestinal haemorrhage, obstruction or perforation or any other condition where stimulation of gastric motility could be harmful.
c. Known hypersensitivity to domperidone, polymethylsiloxane or any of the excipients

PRECAUTIONS

a. Domperidone can cause a rise in serum prolactin level resulting in galactorrhoea in females and less frequently gynecomastia in males.
b. Hypertensive crises may occur in patients with phaeochromocytoma.
c. Caution should be taken in patients with renal impairment or those at risk of fluid retention.

Pregnancy & Nursing Mother

There are limited post-marketing data on the use of domperidone in pregnant women. Therefore, domperidone should only be used during pregnancy when justified by the anticipated therapeutic benefit. Studies have shown that domperidone enters breast milk. It is not known whether this is harmful to the newborn. Therefore, breast feeding is not recommended for mothers who are taking domperidone.

ADVERSE REACTIONS

Immune system disorder: *Very rare;* allergic reactions including anaphylaxis, anaphylactic shock, anaphylactic reaction and angioedema.
Psychiatric system disorders: *Very rare;* agitation, nervousness.
Nervous system disorders: *Very rare;* extrapyramidal side effects, convulsion, somnolence, headache.
Cardiac disorders: QTc prolongation (frequency not known). *Very rare;* ventricular arrhythmias.
Endocrinological disorders: Like other dopamine antagonist, Domperidone, produce a rise in serum prolactin levels which in turn is associated with galactorrhoea, gynecomastia, breast enlargement and reduced libido.
Gastrointestinal disorders: *Rare;* gastrointestinal disorders, including very rare transient intestinal cramps. *Very rare;* diarrhoea.
Skin and subcutaneous tissue disorders: *Very rare;* urticaria, pruritus, rash.
Reproductive system and breast disorders: *Rare;* galactorrhoea, gynaecomastia, amenorrhoea.
Investigations: Very rare: liver function test abnormal.

As the hypophysis is outside the blood brain barrier, domperidone may cause an increase in prolactin levels. In rare cases, this hyperprolactinaemia may lead to neuro endocrinological side effects such as galactorrhoea, gynaecomastia and amenorrhoea. Extrapyramidal side effects are exceptional in adults. These side effects reverse spontaneously and completely as soon as treatment is stopped. Other central nervous system-related effects of convulsion, agitation, and somnolence also are very rare and primarily reported in infants and children.

Others: Dry mouth, diarrhea, abdominal cramps and rarely nervousness

DRUG INTERACTIONS

As with other dopamine antagonists there is a theoretical potential that domperidone may antagonise the hypoporlactinaemic effect of drugs such as bromocriptine. In addition, the prokinetic effects of domperidone may alter the absorption of some drugs. Opioid analgesics and antimuscarinics may antagonise the prokinetic effects of domperidone.

Domperidone is metabolized via the cytochrome P450 isoenzyme CYP3A4; use with ketoconazole has been reported to produce a threefold increase in plasma concentration of domperidone, and an associated slight prolongation in QT interval. Similar increases in domperidone concentrations might theoretically be seen with other potent inhibitors of CYP3A4 such as erythromycin or ritonavir, and such combinations may be best avoided.

DOSAGE AND ADMINISTRATION

For the treatment of nausea and vomiting

Adults and Elderly: One tablet of DOMSTAL MPS orally at 4-8 hourly intervals.

For the treatment of functional dyspepsia, chronic non-ulcer dyspepsia and postprandial dyspepsia

Adults and Elderly: One tablet of DOMSTAL MPS orally 3 times daily 15-30 minutes before meals. A course should not exceed 12 weeks.

In reflux diseases

Adults and Elderly: One tablet of DOMSTAL MPS orally 2-3 times daily 15-30 minutes before meals.

Children: Not recommended.

DIRECTION FOR USE

Chew the tablet before swallowing.

DRUG ABUSE AND DEPENDENCE

DOMSTAL MPS has no known potential for abuse or dependence.

OVERDOSAGE

Overdosage has not been reported with Domperidone. There is no specific antidote to DOMSTAL MPS but in the event of overdosage gastric lavage may be useful.

EXPIRY DATE

Do not use later than the date of expiry.

STORAGE

Store at a temperature not exceeding 25oC,
Protected from light & moisture.
Keep out of the reach of children.

PRESENTATION

DOMSTAL MPS is available in a strip of 10 tablets.

torrent

Manufactured by :
TORRENT PHARMACEUTICALS LTD.
Vill. Bhud & Makhnu Majra, Baddi-173 205,
Teh. Nalagarh, Dist. Solan (H.P.), INDIA.

IN/DOMSTAL MPS 10+ 125 mg +/MAR-2022/02/PI