

SUMMARY OF PRODUCT CHARACTERISTICS

1. NAME OF HUMAN MEDICINAL PRODUCT

MODET[®] 500 mg capsule

2. QUALITATIVE AND QUANTITATIVE COMPOSITION

Effective Substance:

Each capsule contains 500 mg calcium dobecylate.

Excipients:

For excipients, see 6.1.

3. PHARMACEUTICAL FORM

Hard gelatine capsule

4. CLINICAL CHARACTERISTICS

4.1. Therapeutical indications

- Indicated in microangiopathy (in particular in diabetic retinopathy)
- In venous failure, manifesting with pain, cramps and idleness

In addition, as an adjuvant therapy, used in circulation disorders with arterio-venous causes and in hemoroidal disorders.

4.2. Posology and method of administration

Posology:

Dose and treatment term is determined with the suggestion of physician according to the condition to be treated.

Frequency and duration of administration:

Used only in adults.

The daily dose is between 500 mg to 2000 mg. In general 1 or 2 capsules once or twice-a-day must be taken with meals with some water.

Method of administration:

Only for oral administration.

Capsules must be taken with meals without opening.

Additional information for special populations:

Kidney/Liver failure: Dose must be decreased in patients with severe liver failure, receiving dialysis.

Pediatric population: Sufficient data to recommend a dosage regime for routine use in children, is currently not available.

Geriatric population: The administration in elderly is just like adults.

4.3. Contraindications

The product is contraindicated in patients with hypersensitivity to calcium dobecylate.

4.4. Special warnings and special precautions for use

Dose must be decreased in patients with severe liver failure, receiving dialysis.

Rarely, spontaneous agranulocytosis cases, connected to hypersensitivity reaction, following calcium dobecylate intake, have been reported (0.32/million patients). This may be seen in the form of high fever, oral cavity infections (tonsillitis), anogenital region inflammations and accompanying symptoms. These symptoms frequently point to an infection. In case there are any signs of infection, the patients must report the same to their physicians immediately. In this case, blood values must be checked without delay and treatment must be discontinued.

4.5. Interactions with other medicinal products and other forms of interaction

There is no data as of today, pointing that MODET[®] has any interactions with other drugs.

4.6. Pregnancy and lactation

General recommendation

Pregnancy Category C.

Women with childbearing potential/Contraception

Adequate data concerning the use of MODET[®] in pregnant women is not available.

Animal studies are insufficient with respect to harmful effects with respect to pregnancy and/or embryonic/fetal development and/or parturition and/or postnatal development (see, Section 5.3). The potential risk for humans is unknown.

MODET[®] must not be used during pregnancy unless necessary.

Pregnancy

Since it is not known whether calcium dobecylate can pass through placental barrier, it must be used in case it is considered that the benefit to be provided by the drug to pregnant woman will justify potential risks on fetus.

Lactation

Calcium dobecylate is excreted in breast milk in small quantities. Therefore, either treatment or breastfeeding must be discontinued.

Fertility

Has no effects on fertility.

4.7. Effects on ability to drive and use machines

There are no reported adverse events, suggesting that there could be an impairment in the ability of patients, receiving calcium dobecylate to drive and operate machinery.

4.8. Undesired effects

MODET[®] is well-tolerated even in long-term therapies.

Frequencies are defined as: Very common ($\geq 1/10$); common ($\geq 1/100$ to $< 1/10$); uncommon ($\geq 1/1,000$ to $< 1/100$); rare ($\geq 1/10,000$ to $< 1/1,000$); very rare ($< 1/10,000$); unknown (unpredictable with the available data).

Blood and lymphatic system disorders

Very rare: Isolated cases of agranulocytosis have been reported in elderly patients and when used in combination with other drugs.

Gastrointestinal disorder

Rare: Nausea, diarrhea, vomiting

Skin and subcutaneous disorders

Rare: Rashes, itching

Musculoskeletal, connective tissue, and bone disorders

Rare: Arthralgia

General disorders and administration site conditions

Rare: Fever, chills, tremor

These side effects have generally disappeared with the discontinuance of treatment.

In gastrointestinal disorders, the dose must be reduced or treatment must be temporarily discontinued.

In case of rashes, fever, joint pain or changes in blood formulation, the treatment must be discontinued.

4.9. Overdose and Treatment

No overdose cases have been reported until today.

4. PHARMACOLOGICAL CHARACTERISTICS

5.1. Pharmacodynamic Properties

Pharmacotherapeutic group: Vasoprotectives

ATC code: C05BX01

Mechanism of action:

MODET[®] is a capillary function regulator.

Shows the activity of calcium dobecylate on capillary wall by regulating impaired physiological functions, such as increased permeability and decreased resistance. It increases erythrocyte flexibility, inhibits thrombocyte hyperaggregation and decreases hyperviscosity of plasma and blood in diabetic retinopathy. These cause an improvement in the characteristics of blood and irrigation of tissues with blood. These effects allow the improvement capillary function disorders, whether they are dependent on structural or acquired metabolic disorders. Calcium dobecylate contributes to the decrease of edema.

5.2. Pharmacokinetic properties

General characteristics

Absorption:

After oral administration of 500 mg calcium dobecylate, blood levels increase to over 6 µg/ml between hours 3 and 10. Maximum blood level (C_{max}) is 8 µg/ml and is seen average 6 hours (t_{max}) later. Blood concentration after 24 hours is around 3 µg/ml.

Distribution:

The rate of binding to proteins is 20 to 25 %. Calcium dobecylate can not pass brain barrier and placental barrier in animals, yet in humans, there is no information concerning this issue. Calcium dobecylate is excreted in breast milk in very small quantities (in one study, after administration of 1500 mg, 0,4µg/ml was found in breast milk).

Elimination:

Calcium dobecylate does not enter enterohepatic cycle and is primarily excreted unchanged. Only 10 % of administered dose is in the form of metabolites. 50 % of orally administered dose is excreted in urine and 50 % in feces within 24 hours. The plasma elimination half life is approximately 5 hours.

Kinetics in special clinical conditions:

The effects of renal failure on pharmacokinetic characteristics of calcium dobecylate, are not known.

5.3. Pre-clinical safety data

Oral LD50 levels of calcium dobecylate on rats and mice have been found to be over 4000 mg/kg and this is 120 times of the dose, administered to humans.

In preclinical toxicity assessment of calcium dobecylate, specific toxicity related to target organ, toxic effects on reproduction and mutagenic activity were not observed.

6. PHARMACEUTICAL CHARACTERISTICS

6.1. List of excipients

Corn starch
Magnesium stearate
Red iron oxide (E172)
Titanium dioxide (E172)
Yellow iron oxide (E172)
Gelatin
Indigo carmine-FD&C blue 2 (E132)
Iron oxide black (E172)

6.2. Incompatibilities

There is no evidence, pointing that MODET[®] is incompatible with any pharmaceutical or substance.

6.3. Shelf-life

24 months.

6.4. Special warnings for storage

Keep at room temperature below 25 °C.

6.5. Nature and content of the package

Presented in PVC-PVDC/Al foil blister packages, containing 30 and 60 capsules within a cardboard box, together with usage instructions.

6.6. The disposal of remnants of human medicinal product and other special precautions

Unused products or waste materials must be disposed in accordance with “Regulation concerning Control of Medical Wastes” and “Regulation concerning Control of Packages and Package Wastes.”

7. LICENSE OWNER

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8. LICENSE NUMBER(S)

222/96

9. DATE OF INITIAL LICENSE/RENEWAL OF LICENSE

Initial license date: 30.12.2009
Date of license renewal: ----

10. DATE OF RENEWAL OF SPC
