Econazole Nitrate, Triamcinolone Acetonide and Gentamicin Cream

1. Qualitative and quantitative composition

Econazole Nitrate BP……...1 % W/W

Triamcinolone Acetonide BP ……...…0.1% W/W

Gentamicin Sulfate BP equivalent to Gentamicin…..0.1% W/W

In a creams base……q.s

2. Pharmaceutical form

Topical Cream

White coloured homogenous cream.

3. Clinical particulars

3.1 Therapeutic indications

Econazole Nitrate, Triamcinolone Acetonide and Gentamicin Cream is indicated for the topical treatment of inflammatory dermatomycoses and inflammatory skin conditions complicated by bacterial or fungal skin infection.

Allergic inflammatory dermatoses (eczema, dermatitis, diaper dermatitis, intertrigo, etc)

- Trychophytosis (tinea pedis, tinea corporis, tinea faciei, tinea capitis, tinea cruris, tinea sycosis etc)
- Skin candidiasis, vulvovaginal candidiasis, tricomonas & vaginitis.
- Bacteria skin infections caused by susceptible strains to gentamicin.

3.2 Posology and method of administration

Apply to the affected area once to several times daily as directed by the physician.

3.3 Contraindications

- Hypersensitivity to Econazole, Triamcinolone Acetonide, Gentamicin Sulphate (other aminoglycoside) or any component of the formulation.
- Patients with tuberculosis cutis, herpes simplex, varicella, herpes zoster, vaccinia and syphilis.
- Patients with eczematous otitis externa and perforated ear drum.

- Ulcer (Behcet's disease), burn (exceed 2°)
- Patients who have previously exhibited hypersensitivity to aminoglycoside antibiotic (such as Streptomycin, Neomycin, Kanamycin and Gentamicin) and Bacitracin.

3.4 Special warnings and precautions for use

- Discontinue drug if sensitivity or chemical irritation occurs.
- Long-term continuous therapy particularly occlusive dressings should be avoided since it may cause side effects same as systemic administration of corticosteroid.
- Avoid long-term therapy: the overgrowth of non-susceptible organisms, including fungi, occasionally occurs with the use of topical antibiotic. If this occurs, or if irritation, sensitization, or super infection develops, treatment should be discontinued and appropriate therapy instituted.
- If the symptom aren't being improved or are aggravated, discontinue the therapy.
- If the symptom is improved, change the drug to other non-steroidal drug as soon as possible.

3.5 Interaction with other medicinal products and other forms of interaction

None.

3.6 Fertility, pregnancy and lactation.

Pregnancy

Not the econazole but the triamcinolone acetonide crosses the placenta and topical administration of corticosteroid to pregnant animals can cause abnormalities of foetal development. The relevance of this finding to human beings has not been established. However, topical steroids in large amounts or for prolonged periods should not be used in pregnancy.

Lactation

Negligible amount of econazole and to some extent triamcinolone may be excreted in small amounts in breast milk.

Fertility

Not available.

3.7 Effects on ability to drive and use machines

There have been no studies to investigate the effect of on driving performance or the ability to operate machinery. A detrimental effect on such activities

Would not be anticipated from the adverse reaction profile of topical cream.

3.8 Undesirable effects

Safe and well tolerated. Rarely, some patients may show mild to moderate irritation (erythema and pruritus) that do not usually require discontinuation of treatment.

Other dermal symptoms: Long-term therapy may cause steroidal acne, steroidal skin (skin atropy, telangiectasis) and changes of the skin such as thinning, purpura, hirsutism and hypopigmentation. Such symptoms may occur slowly, decrease the dosage of this drug and change to non-steroidal drugs.

HPA axis dysfunction: Long-term therapy or occlusive dressings may cause hypothalamus pituitary-adrenal (HPA) axis suppression.

3.9 Overdose

Triamcinolone Acetonide, Econazole Nitrate & Gentamicin Sulphate Cream is intended for topical use. If accidental ingestion of large quantities of the product occurs, an appropriate method of gastric emptying may be used if considered desirable. Topically applied corticosteroid can be absorbed in sufficient amounts to produce systemic effects such as thinning of the skin, increased sweating, purpura, striae, hirsutism, and lupus erythematosus-like lesions and suppressed reactions to skin tests.

4. Pharmacological properties

4.1 Pharmacodynamic properties

Pharmacotherapeutic group: Anti-inflammatory, corticosteroid, Antifungal antibiotic

Triamcinolone Acetonide

Triamcinolone Acetonide is a potent corticosteroid with anti-inflammatory, antipruritic and antiallergic activity.

Econazole Nitrate

Econazole is an imidazole antifungal agent which alters fungal cell wall membrane permeability, may interfere with Ribonucleic Acid, protein synthesis and lipid metabolism.

Gentamicin Sulphate

Gentamicin is an aminoglycoside antibiotic which interferes with bacterial protein synthesis. It is active against a wide variety of pathogenic gram-positive and gram-negative microorganisms. Gentamicin is indicated for the topical treatment of the primary and secondary bacterial infections of the skin caused by the organisms sensitive to Gentamicin. Gentamicin may clear infections that have not responded to other topical antibiotics.

4.2 Pharmacokinetic properties

Cream intended for treatment of skin conditions and is applied topically. Thus there are minimal pharmacokinetic aspects related to bioavailability at the site of action.

The pharmacokinetics of cream includes the following:

Triamcinolone Acetonide

Triamcinolone is well absorbed from the gastrointestinal tract and applied topically, especially when closed after applying the drug, applied on infected or damaged skin. Topical triamcinolone is metabolized in the skin to inactive active ingredients and excreted in the urine.

Econazole Nitrate

When used topically, the antifungal drug econazole can be absorbed through the epidermis, but systemic absorption is rare.

Gentamicin Sulphate

Systemic absorption of the antibiotic gentamicin has been reported when applied topically to exposed or burned skin, body cavities, or joints. The plasma half-life of gentamicin is 2 to 3 hours, which may be prolonged in neonates and in patients with renal impairment.

4.3 Preclinical safety data

Carcinogenesis, Mutagenesis & Fertility

Triamcinolone Acetonide caused no treatment-related carcinogenicity at oral doses up to 3.0 mcg/kg in a two-year study. No evidence of mutagenicity was detected from in vitro tests (a reverse mutation test in Salmonella bacteria and a forward mutation test in Chinese hamster ovary cells) conducted with triamcinolone acetonide. Animal studies in which corticosteroids have been given to pregnant mice, rats and rabbits have yielded an increased incidence of cleft palate in the offspring.

No carcinogenicity studies have been performed with econazole nitrate. Econazole nitrate was negative in the Ames test and did not induce structural chromosome aberration in vivo. Oral administration of econazole nitrate in rats has been reported to produce prolonged gestation.

There were no carcinogenicity studies available on gentamicin. Gentamicin Sulphate was negative for inducing a mutagenic response in the CHO/HGPRT gene mutation assay in the presence or in the absence of metabolic activation. A multigenerational study in the rat showed no adverse effects on reproduction after intramuscular injections of 5 and 20 mg/kg bw/day.

5. Pharmaceutical particulars

5.1 List of excipients

Cetamacrogal 1000, Cetosteryl Alcohol, White Soft Paraffin, Light liquid Paraffin, Propylene Glycol, Methyl Paraben & Purified water.

5.2 Incompatibilities

None.

5.3 Shelf life

36 Months

5.4 Special precautions for storage

Store in a cool place and protect from light.

Keep all medicines out of reach of children.

5.5 Nature and contents of container

Cream is a white coloured homogenous cream filled in a 20 gm printed lami tube packed in a printed carton along with leaflet.

5.6 Special precautions for disposal and other handling

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

6. Marketing authorization holder

CLAROID PHARMACEUTICALS PVT. LTD.
217/P, Opp. Gurukul English Medium School,
Kamod Pirana Road, Tal. Daskroi,
Dist. – Ahmedabad- 382425, Gujarat, India.