

SYSTEMIC TREATMENT OF DERMATOSES

- Numerous dermatoses respond to systemic treatment in many cases.
- A combination of systemic and topical treatment is frequently appropriate.
- Frequent advantages of systemic treatment of dermatoses are the stronger and faster action than topical treatment the substantially simpler use.

DRUG FOR SYSTEMIC TREATMENT OF DERMATOLOGICAL DISEASES:

- Glucocorticoids
- Antibiotics
- Antifungals
- Antiviral substances

DRUG FOR SYSTEMIC TREATMENT OF DERMATOLOGICAL DISEASES:

- Cytostatics and immunosuppressives
- Antihistamines
- Retinoids
- Antimalarials

CORTICOSTEROIDS

I.

- Antiinflammatory Effects:
- Vasoconstriction
- Inhibition of neutrophil functions (chemotaxis, phagocytosis, release of lysosomal enzymes)
- Inhibition of macrophage functions (release, adherence)
- Inhibition of lymphocyte function (lympholysis, lymphokine formation, lymphocyte dispersion)

CORTICOSTEROIDS

II.

- Side effects:
- Reduction in the ability of the body to counter infections by virus, bacteria and fungi
- Latent infections may be exacerbated (tuberculosis)
- Wound healing and scar formation impaired
- Production of ACTH is decreased
- Sodium retention

CORTICOSTEROIDS

II.

- Osteoporosis, spontaneous fracture, aseptic bone necrosis
- Thrombophlebitis, thromboses
- Glaucoma, cataract
- Hyperacidity with gastric or duodenal ulcers
- Psychological effects (euphoria, insomnia, depression)
- Steroid acne, steroid purpura, atrophy, striae distensae

CORTICOSTEROIDS

III.

- Indications:
- Allergic skin conditions with systemic involvement (especially anaphylactic shock, allergic angioedema), Lyell's syndrome and other severe drug eruptions

CORTICOSTEROIDS

III.

- Autoimmune diseases
 - Pemphigus group
 - Bullosus pemphigoid
 - Sytemic lupus erythematosus
 - Dermatomyositis
 - Periarthritis nodosa
 - Mixed connective tissue disease.

CORTICOSTEROIDS

III.

- For shorter periods in inflammatory dermatoses (acute dermatitis, erythema multiforme, erythema nodosum, particular forms of eczema)
- In granulomatous inflammation of the skin (sarcoidosis, disseminated granuloma annulare)

ANTIBIOTICS

- Antibiotics are used for bacterial infections of the skin as well as for venereal diseases
- Penicillins
- Cephalosporins
- Tetracyclines
- Erythromycin
- Sulfonamides

ANTIFUNGALS

- Griseofulvin
- Terbinafinum
- Fluconazol
- Itraconazol
- Amphotericin-B

ANTIVIRAL SUBSTANCES

- Acyclovir
- Famciclovir
- Valaciclovir

CYTOSTATICS

- Alkylating Agents
- Antimetabolites
- Vinca Alkaloids
- Antibiotics
- Other Cytostatics

IMMUNOSUPPRESSIVE AGENTS

- As a result of their effects on proliferation and/or protein synthesis. All cytostatics also have immunosuppressive effects
- Cyclosporine (Sandimmune)

ANTIHISTAMINES

- Because of their molecular similarity to histamine, antihistamines act competitively on the H1 receptors in blood vessels and smooth muscle
- Nonsedating antihistamines

RETINOIDS

These are derived chemically from vitamin A or vitamin A acid

- Acitretin (Neotigason)
- Severe forms of psoriasis, especially psoriatic erythroderma, psoriasis pustulosa generalisata, psoriasis palmoplantaris
- Disturbances of keratinization – ichthyoses, palmoplantar keratoses, Darier's disease, pityriasis rubra pilaris, lichen planus.

RETINOIDS

- Isotretinoin (Accutane, Roaccutan)
- Severe otherwise treatment – resistant forms of acne
- Severe rosacea often responds very well

ANTIMALARIALS

- Chloroquine and hydroxychloroquine have a stabilizing action on the lysosomes and are antiinflammatory.
- Indications:
 - Lupus erythematosus – discoid form
 - Photodermatoses
 - Porphyria cutanea tarda (at very low dose)

TOPICAL TREATMENT OF DERMATOSES

Treatment is frequently a combination of systemic and topical measures and often solely topical.

The topical treatment of skin diseases has no parallel in other fields of medicine

- Important facts are:
 - Knowledge of the bases (vehicles, carriers)
 - Knowledge of the drugs and active substances incorporated
 - Knowledge of the exact indications

TREATMENT WITH DERMATOLOGICAL BASES

- Aqueous Solutions
- Baths
- Wet Dressing
- Varnishes
- Sprays
- Powders
- Lotions
- Gels

TREATMENT WITH DERMATOLOGICAL BASES

- Water-Soluble Bases (Lipogels)
- Pastes
- Oils
- Ointments
- Creams
- Liquid Emulsions (Lotions)

POWDERS

These are dry – dispersed granular particles

Effects. Because of the large surface areas of the powder particles, powders have cooling, protective, antifrictional, superficial antiinflammatory actions on the skin.

Side Effects. Powders have only a superficial action and have a drying effect.

LOTIONS

Lotions (shake lotions) are suspensions of solid material in water or ethanol – water mixtures, that is, two phase systems

Effects. Shake lotions have cooling, adstringent, drying, and superficial antiinflammatory actions

Side Effects. They are not suitable for oozing and crusty skin conditions

PASTES

Paste is a name for ointments in which powder constituents are distributed in large amounts, two phase systems.

Effects: Pastes have a cooling, antiinflammatory, secretion-absorbing (drying), and skin protective action.

Side Effects: Hard pastes in particular have a heat-retaining effect, consequently, they are contraindicated in acute inflammatory skin conditions

OINTMENTS AND EMULSIONS

They play a very important role as carriers of drugs in topical dermato-therapy. There is no uniform nomenclature in this group.

CREAMS

- Fundamentally, a cream consists of an emulsion, i.e. a two phase system of water and fatty substances.
- Two types of emulsion or cream can be distinguished:
 - Emulsions of the water in oil type (W/O) lipophilic cream
 - Emulsions of the oil in water type (O/W) hydrophilic cream

CREAMS

- Effects: Hydrophilic creams adhere to moist skin, rapidly penetrate the skin, and are water washable. They need added preservatives to protect against microbial growth.

Indications: They are indicated in acute and discharging inflammatory dermatoses

FATTY OR HYDROPHOBIC OINTMENTS

These are practically anhydrous, lipophilic and hydrophobic, highly fatty bases, not washable with water.

Effects: Fatty ointments form a largely impervious covering layer on the skin, have warmth and water-retaining properties, soften the skin, and promote penetration of drugs

FATTY OR HYDROPHOBIC OINTMENTS

Side Effects: During treatment with fatty ointments, there is greater obstruction to the release of heat and water this can increase inflammation, especially in acute inflammatory condition.

Indications: These ointments are employed for descaling, for the treatment of hyperkeratotic and fissured hand eczemas, and finally with patients with asteatosis and dry skin conditions.

OINTMENTS

The term ointment is also used for lipophilic emulsions of the water in oil (W/O) type, i.e., for lipophilic creams.

Effects: These are similar to those for fatty ointments

Side Effects: Tend to promote inflammation in acute inflammatory skin conditions.

Indications: They are employed mainly in chronic inflammations.