

TOPICAL DERMATOLOGIC THERAPY

I. VEHICLES (BASES)

A. POWDERS

1. reduce friction; absorb moisture
2. eg. talc, cornstarch, Zeasorb

B. SHAKE LOTIONS/EMULSIONS

1. suspension of non-soluble in liquid/oil
2. drying, soothing
3. eg. Calamine

C. SOLUTIONS

1. active medication dissolved in aqueous or alcohol solution
2. useful in hair bearing areas

D. GELS

1. similar to a solution, but with an added polymer to provide substance - less "runny" than solutions

E. CREAMS

1. oil-in-water (light) or water-in-oil (heavy)
2. require preservatives, emulsifiers, stabilizers
3. cosmetically acceptable

F. OINTMENTS

1. nonaqueous base, usually petrolatum
2. greasy, cosmetically not desirable, especially in hair bearing areas
3. usually best delivery system in terms of effectiveness

G. PASTES

1. nonvanishing. thick wax based. remain on skin

2. cosmetically unacceptable, messy

II. SOAKS, BATHS

- A. soothing anti-inflammatory, antipruritic, may be anti- infective or used to dry oozing areas or loosen debris in wounds

- B. Examples:

1. colloidal oatmeal (Aveeno) - soothing
2. Aluminum Subacetate (Dome Boro's) - drying. antibacterial
3. Daikon's Solution - saline with sodium hypochlorite - good debriding agent
4. Tar - anti-inflammatory, useful for eczema, psoriasis
5. Oil - soothing, hydrating

III. ANTI- INFLAMMATORY

A. TOPICAL STEROIDS

1. Potency (as determined by vasoconstrictor assay):
 - a Classification: Class I - super potent - Class VII - least potent
 - b Concentration
 - c Vehicle
 - d Substitution (fluorination, esterification)
2. Usage
 - a Type of skin
 - b Area to be covered - 30 gms per total body application
 - c Location to be treated - facial and intertrigenous areas require special attention
 - d Cost - generic vs. Brand-name

B. TAR PREPARATIONS

1. May be compounded with steroids
2. Messy, staining, potentially irritating

- a LCD (Liquor Carbonis Detergens)
- b Anthralin - synthetic
- c Pine Tar Extracts

c. SPECIAL CASES

1. Viaform

- a Useful in intertriginous areas

2. Topical Antihistamines and Anesthetics

- a Any preparation ending with "-dryl" or "-caine" (eg. Benedryl, Caladryl, Benzocaine) is potentially sensitizing. Zonalon (topical doxepin) may be effective

3. Capsaicin

- a Depletes substance P

IV. TOPICAL ANTIBIOTICS

A. ANTI-INFECTIVES

1. Bacitracin, Polymixin B, Neomycin - wound healing, - prophylaxis only

Polysporin , Neosporin

NB: Products with neomycin (eg. "triple" antibiotic) should be avoided due to high incidence of hypersensitivity!

2. Mupiricin (Bactroban) - effective for impetigo

3. Cleocin, Erythromycin - folliculitis

4. Sulfonamides (Azulfidine) - burns

5. Cleansing Agents

- a Soaps - Deodorant (Triclosan)

- b Scrubs

- i chlorhexidene (Hibiclens)

ii povidone/iodine (Betadine)

iii hexachlorophene (PhisoHex)

c Alcohol

d Hydrogen Peroxide

B. ACNE

1. Erythromycin

2. Clindamycin

3. Tetracycline

4. Meclocycline

5. Sulfonamides

6. Metronidazole (Flagyl) - rosacea

V. TOPICAL ANTI FUNGALS

A. Candida, yeast

1. nystatin (Mycostat)

B. Fungi

1. Powders

a useful in prevention

i tolnaftate

ii micostatin

iii undecylenic acid

2. Shampoos

a Zinc - (Head & Shoulders)

b Tar - (T-Gel)

c Selenium Sulfide - Selsun Blue

d Nizoral

3. Creams/Lotions

a Imidazoles

i clotrimazole (Lotrimin)

ii Ketoconazole, econazole, miconazole

b Cyclopirox (Loprox)

c Allyl Amines (Lamisil)