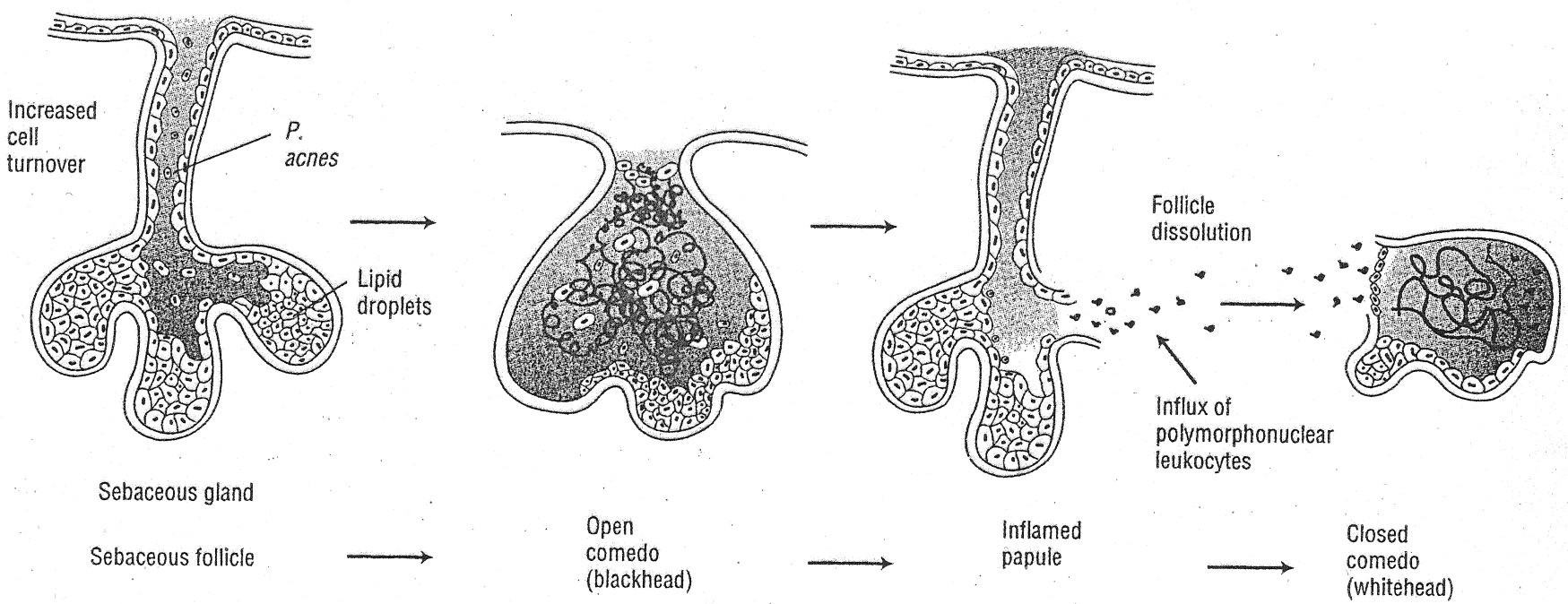

FIGURE 88–3. Cross-sectional view of the s ıceous follicle.

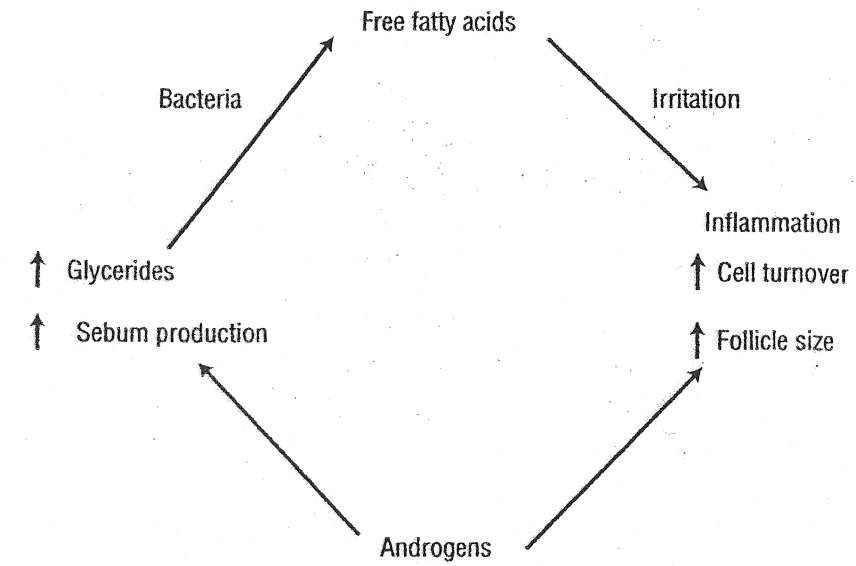

Figure 15–1. Acne pathogenesis.

TABLE 15–1. Major Pathophysiologic Features of Acne and Responsive Pharmacotherapeutic Agents

Feature	Systemic Drug	Topical Drug
Sebum production/secretion	Estrogens Antiandrogens Spironolactone Isotretinoin	None established
Abnormal desquamation of follicular epithelium	Isotretinoin Antibiotics	Tretinoin Salicylic acid Adapalene Tazarotene
P. acnes proliferation	Tetracycline Minocycline Doxycycline Erythromycin Clindamycin Cotrimoxazole Isotretinoin	Erythromycin Clindamycin Benzoyl peroxide Azelaic acid
Inflammation	Corticosteroids Isotretinoin Nonsteroidal anti-inflammatory agents	Metronidazole Intralesional corticosteroids Sulfur Adapalene Azelaic acid

TABLE 15–2. Topical Acne Treatment Guidelines

Active Ingredient	Formulation	Strength (%)	Regimen	Potential Side Effects
Benzoyl peroxide	Soaps, lotions, creams, gels	2.5–10	Initially every other day, or daily, then twice daily	Irritation based on form/strength Bleaching/staining of clothing
Tretinoin	Creams, gels, solution, microsphere gel, liquid polymer	0.025–0.05	Initially every other day or daily	Moderate erythema, burning, stinging, pruritus Concomitant use of other irritants increases likelihood of undue irritation
Sulfur/resorcinol/ salicylic acid	Creams, lotions, gels, soaps	0.5–10 in various combinations	Daily	
Clindamycin	Solution, gel, lotion	1	Twice daily	Drying, gastrointestinal effects (*P. colitis*)
Tetracycline	Solution	2.2	Twice daily	Burning and stinging following application, skin discoloration
Erythromycin	Solution, powder, gel	1.5–2	Twice daily	Drying, erythema
Adapalene	Gel, lotion	0.03–0.1	Daily	Moderate erythema, drying, stinging, burning, pruritus
Azelaic acid	Cream	20	Twice daily	Mild, transient, local erythema, burning, pruritus
Tazarotene	Gel	0.1	Daily or twice daily	Moderate erythema, burning, stinging, pruritus

Tableau 5: Classification des glucocorticoïdes topiques en fonction de leur niveau d'activité anti-inflammatoire*

Niveau 1	activité anti-inflammatoire **modeste**: *hydrocortisone* (acétate) 1.0%; *prednisolone* (acétate) 0.5%; *fluocinonide* 0.01%; *fluocortine* (ester butylique) 0.75%; *dexaméthasone* 0.1%.
Niveau 2	activité anti-inflammatoire **moyenne**: *flumétasone* (pivalate) 0.02%; *clobétasone* (butyrate) 0.05%; *fluocortolone* (caproate) 0.25%; *fluocortolone* (pivalate) 0.25%; *désonide* 0.1%; *triamcinolone* (acétonide) 0.1%; *fluocinolone* (acétonide) 0.025%; *bétaméthasone* (valérate) 0.05%.
Niveau 3	activité anti-inflammatoire **forte**: *bétaméthasone* (valérate) 0.1%; *hydrocortisone* (butyrate) 0.1%; *méthylprednisolone* (acéponate) 0.1%; *fluprédnidène* (acétate) 0.1%; *désoximétasone* 0.25%; *halcinonide* 0.1%; *bétaméthasone* (dipropionate) 0.05%; *mométasone* (furoate) 0.1%; *diflucortolone* (valérate) 0.1%; *fluocinonide* 0.05%; *fluticasone* (propionate) 0.05%; *halométhasone* 0.05%; *diflorasone* (diacétate) 0.05%; *fluocinolone* (acétonide) 0.2%.
Niveau 4	activité anti-inflammatoire **très forte**: *bétaméthasone* (dipropionate) dans du propylèneglycol 0.05%; *ulobétasol* (propionate) 0.05%; *clobétasol* (propionate) 0.05%.

* A l'intérieur de chaque classe, les glucocorticoïdes sont cités dans l'ordre de puissance croissant.

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Tableau 7: Effets indésirables des glucocorticoïdes topiques (GCT)

- Exacerbation d'une infection virale, bactérienne, fongique
- Atrophie épidermique **(réversible)**
- Atrophie dermique (télangiectasies, vergetures) **(peu réversible)**
- Guérison retardée des plaies
- Dermatite périorale
- Granulome glutéal infantile
- Hypertrichose
- Troubles de la pigmentation
- Hypersensibilité locale **(rare)**
- Effets indésirables oculaires (glaucome, cataracte **si utilisation périoculaire)**
- Effets systémiques (ch. 31)

TABLE 15–3. Oral Acne Treatment Guidelines

Active Ingredient	Formulation	Strength (mg)	Regimen	Potential Side Effects
Tetracycline	Tablets, capsules	250–500	1 g/d initial; if no response in 2–3 weeks or severe acne, 2–3 g/d. Maintenance 125–500 mg/d	Gastrointestinal upset, photoreactivity, drug and food interactions
Minocycline	Tablets, capsules, suspension	50–100	100 mg twice daily	CNS effects (dizziness, drowsiness), discoloration of skin
Doxycycline	Tablets, capsules, suspension, syrup	50–100	50–100 mg twice daily	Discoloration, gastrointestinal upset (esophagitis), photoreactivity
Erythromycin	Tablets as various salts	250–500	1 g/d as base; if no response in 2–3 weeks or severe acne, 2–3 g/d. Maintenance 250–500 mg/d	Gastrointestinal upset, cutaneous reactions, drug interations
Clindamycin	Capsules	75, 150, 300	300–450 mg/d	Diarrhea, pseudomembranous colitis
Isotretinoin	Capsules	10, 20, 40	0.5–1 mg/kg/d two divided doses Maximum of 2 mg/kg/d	Cheilitis, erythema, dryness, gastrointestinal effects, teratogenicity

ACNE : Principes de Pharmacothérapie

- Contrary to popular belief, diet, hygiene, cosmetic use, and certain hairstyles do not necessarily play a role in the development of acne.
- In mild inflammatory acne, topical treatment with once- to twice-daily application of an antibacterial agent as well as a comedolytic agent is recommended.
- Acne patients with scarring potential and those not responding to topical therapy may use the combination of a topical comedolytic agent with a systemic antibiotic.
- Acne patients with nodular lesions and scarring potential are candidates for systemic isotretinoin therapy.
- The clinical response in acne is delayed and is not fairly assessed, regardless of therapeutic regimen, until 6 to 8 weeks of therapy.
- Since topical agents are disease-preventive, all acne-prone areas should be treated to prevent or minimize the formation of new lesions and to minimize the risk of scarring.

DiPiro 2002

TABLE 96–8. **Pathophysiologic Aspects of Psoriasis**

Defects in epidermal cell cycle
Disruption in arachidonic acid metabolism
Genetics
Exogenous trigger factors
Climate
Stress
Infection
Trauma
Drugs
Immunologic mechanisms

Di Pino (2002)

TABLE 96–11. Topical Psoriasis Treatment Guidelines

Active Ingredient	Formulation	Strength (%)	Regimen	Potential Side Effects
Emollients	Lotions, creams, ointments	N/A	Three to four times daily	Folliculitis, contact dermatitis
Salicylic acid (keratolytic)	Gels, lotions	2–10	Two to three times daily	Can be irritating Has resulted in salicylism
Coal tar	Creams, gels, lotions, ointments, solutions	1–48.5	Apply in evening, allowing to remain through the night	Messy and burdensome Can be irritating Photoreactions
Anthralin	Creams, ointments	0.1–1	Usually in the evening, allowing to remain through the night. Short contact regimens have also been used	Stains skin and clothing Can be irritating
Calcipotriene	Ointment, solution, cream	0.005	Apply twice daily, no more than 100 g/wk, for up to 8 days	Burning and stinging in 10% of patients
Corticosteroids	Creams, lotions, ointments, solutions	Variable potency	Two to four times daily for maintenance; may use occlusion at night	Local tissue atrophy, striae, epidermal thinning, glucocorticoid systemic effects
Methoxsalen	Lotion	≤1	Soak or apply to area prior to UVA therapy	Photoreaction, exaggerated burning

DiPino (2002)

TABLE 96–12. Oral Psoriasis Treatment Guidelines

Active Ingredient	Formulation	Strength	Regimen	Potential Side Effects
Sulfasalazine	Suspension, tablets	250 mg/5 mL, 500 mg	3–4 g/day	Gastrointestinal upset
Methoxsalen	Capsules	10 mg	Dosed on a mg/kg 2 hours before UVA exposure	Burns, erythema, gastrointestinal upset, CNS effects, ocular damage
Methotrexate	Tablets, injection	2.5 mg; 20–25 mg/mL	2.5–5 mg every 12 hours for three doses every week	Anemia, leukopenia, thrombo-cytopenia, gastrointestinal upset
Acitretin	Capsules	10 mg, 25 mg	25–50 mg daily	Dry mouth and lips, eye irritation, arthralgia, monitor liver function tests
Cyclosporine	Capsules, solution	25 mg, 100 mg, 100 mg/mL	3–4 mg/kg/day in two divided doses; may increase to 5 mg/kg/day in one month if no response	Nephrotoxicity, gastrointestinal upset, hypertension, tremor, monitor liver function tests
Tacrolimus	Capsules	1 mg/5 mg	0.15 mg/kg twice daily, titrate based on side effects	Nephrotoxicity, gastrointestinal upset

Di Pino 2002

Psoriasis : Principes de Pharmacothérapie

- Exogenous factors such as climate, stress, infection, trauma, and drugs may aggravate or trigger psoriasis in an individual who is otherwise genetically predisposed to expression of the disease.
- Warm seasons and sunlight improve psoriasis in 80% of patients, whereas a majority report worsening with cold or hot temperature extremes.
- Adjunctive topical therapies include psoriasis emollients, keratolytics, and corticosteroids.
- A positive response to psoriasis therapy is noted as "normalization" of involved areas measured by reduced erythema and scaling as well as reduction of plaque elevation.
- The risk-benefit ratio is an important consideration in the treatment of psoriasis, and the goal is to maintain a functional status for the patient.
- Disease-modifying therapies for psoriasis include topical calcipotriene and tazarotene, light-source treatments such as coal tar plus ultraviolet B and PUVA, and systemic treatments such as methotrexate, hydroxyurea, cyclosporine, and acitretin.

Di Pino