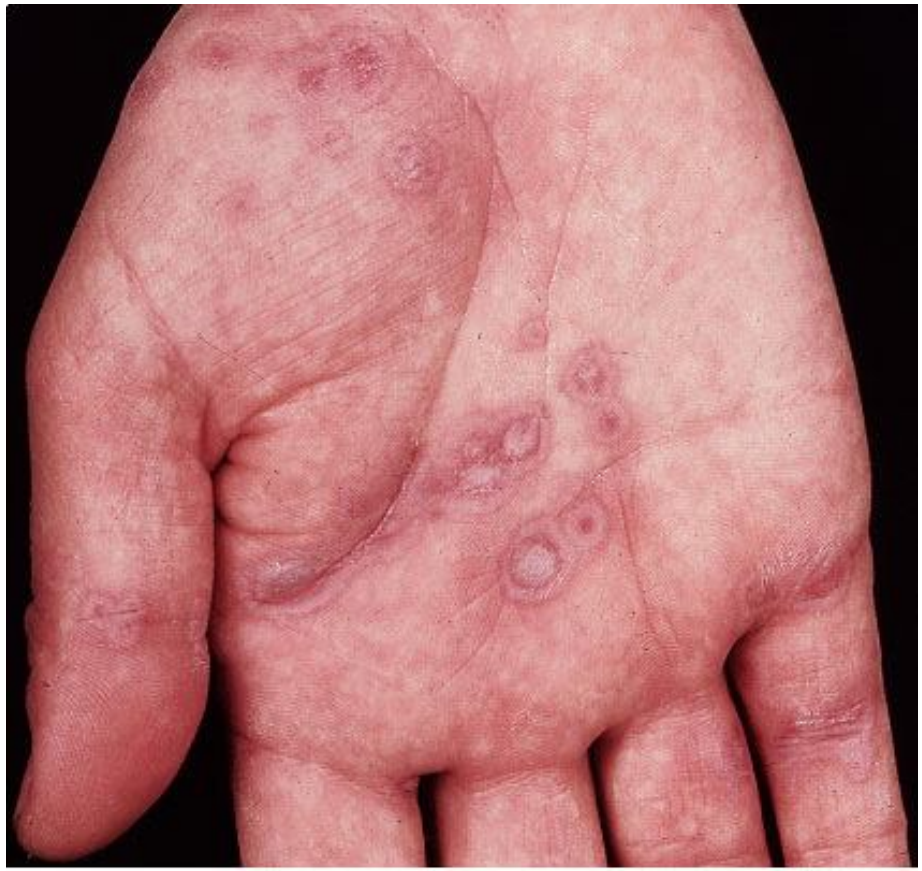
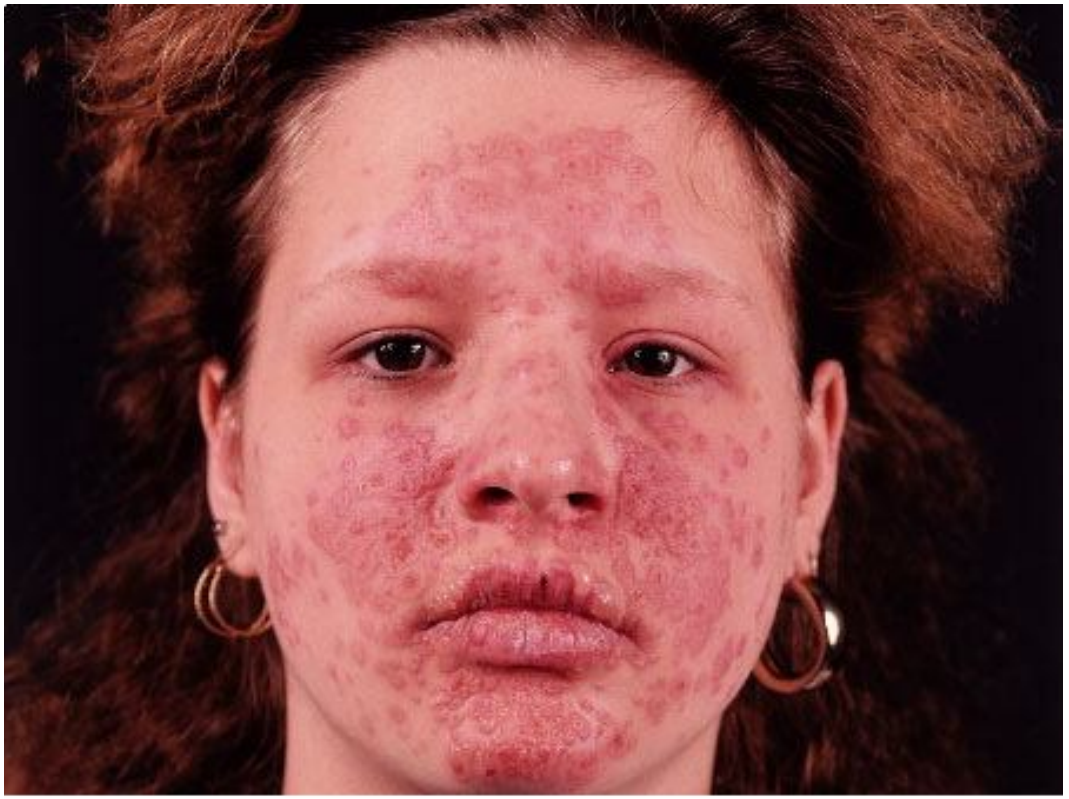
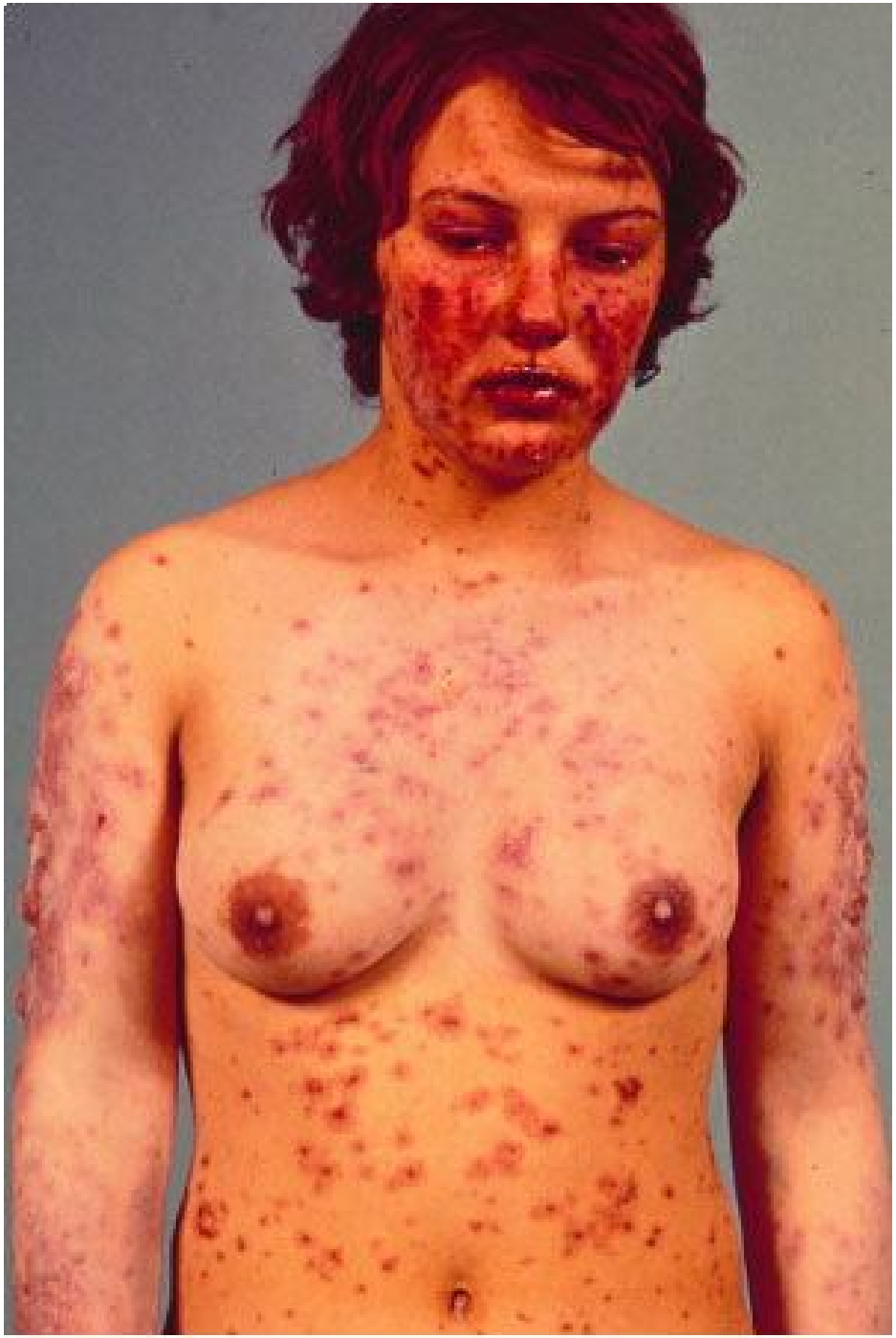
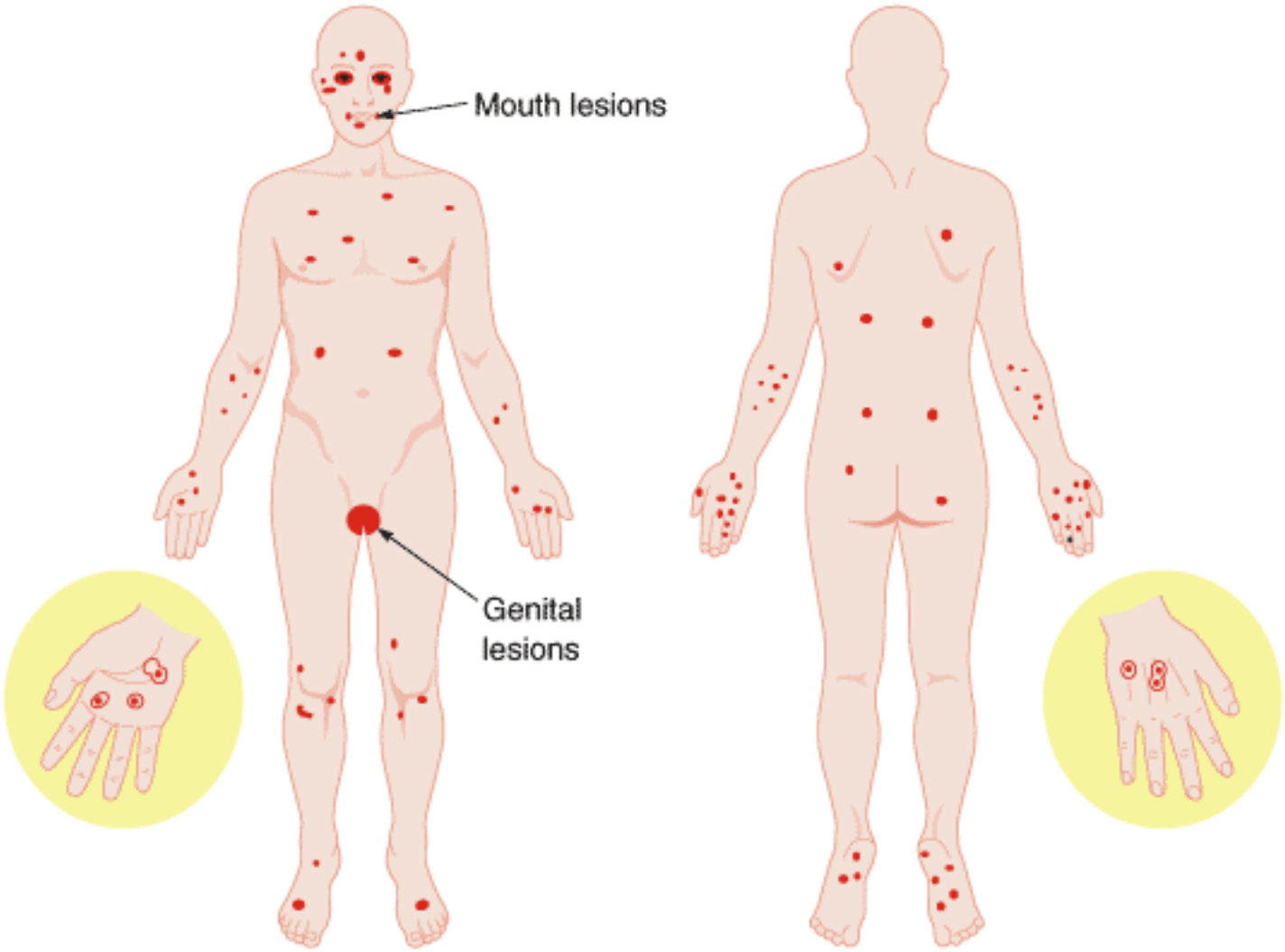
Drug-induced purpura

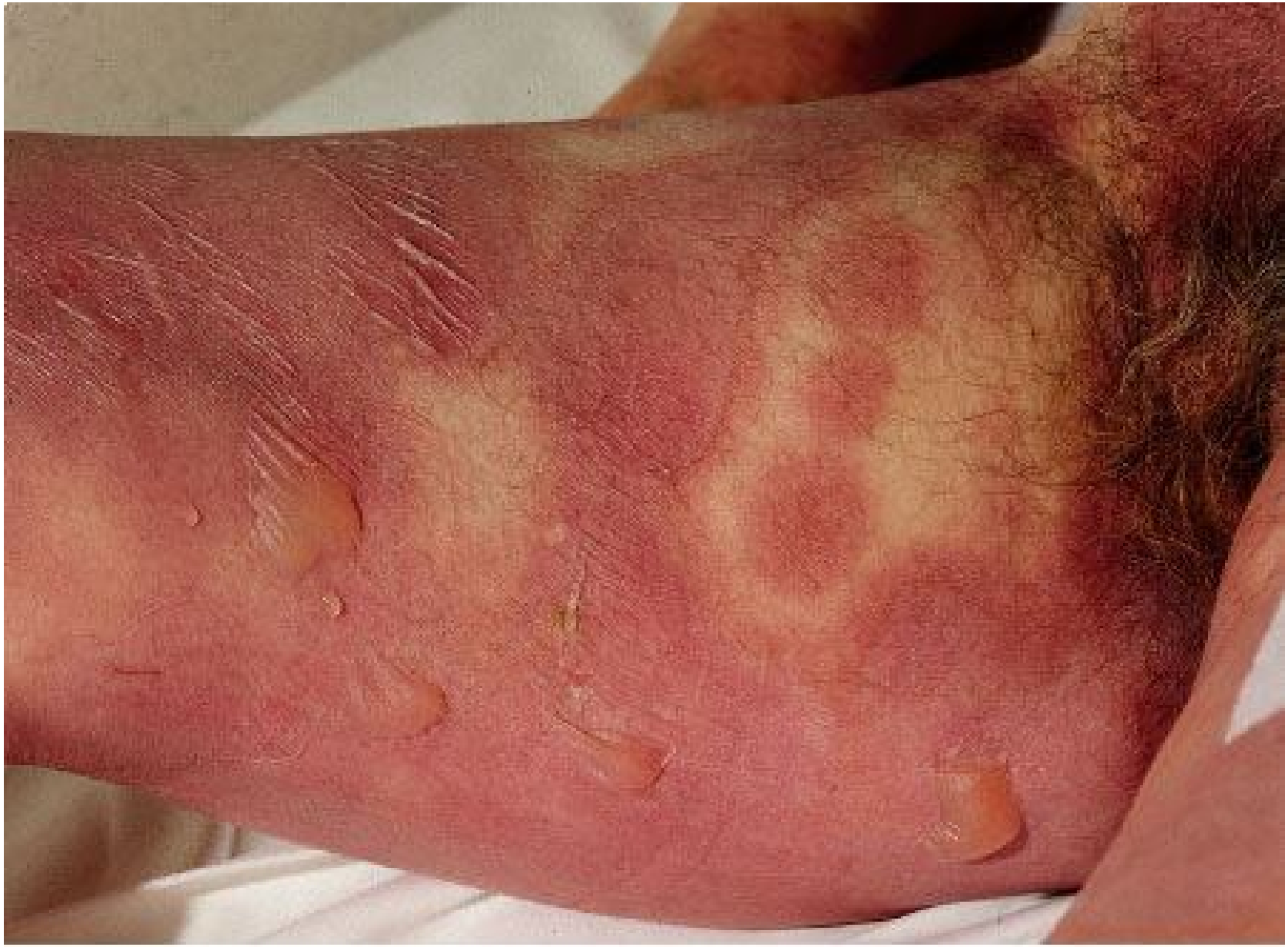
1. ยามีผลต่อ coagulation เช่น cephalosporins บางตัว
2. หรือทำให้เกร็ดเลือดต่ำลงโดยกลไกทางอิมมูนวิทยา เช่น quinidine หรือไม่ใช่กลไกทางอิมมูนวิทยา เช่น cytotoxic drug
3. ทำให้เกร็ดเลือดทำหน้าที่ผิดปกติ เช่น valproic acid
4. ทำให้เส้นเลือดเปราะ และเนื้อเยื่อที่พยุงหลอดเลือดลดลง เช่น steroid induced purpura
5. ยาบางชนิดจะทำให้เกิดเส้นเลือดอักเสบ เช่น allopurinol

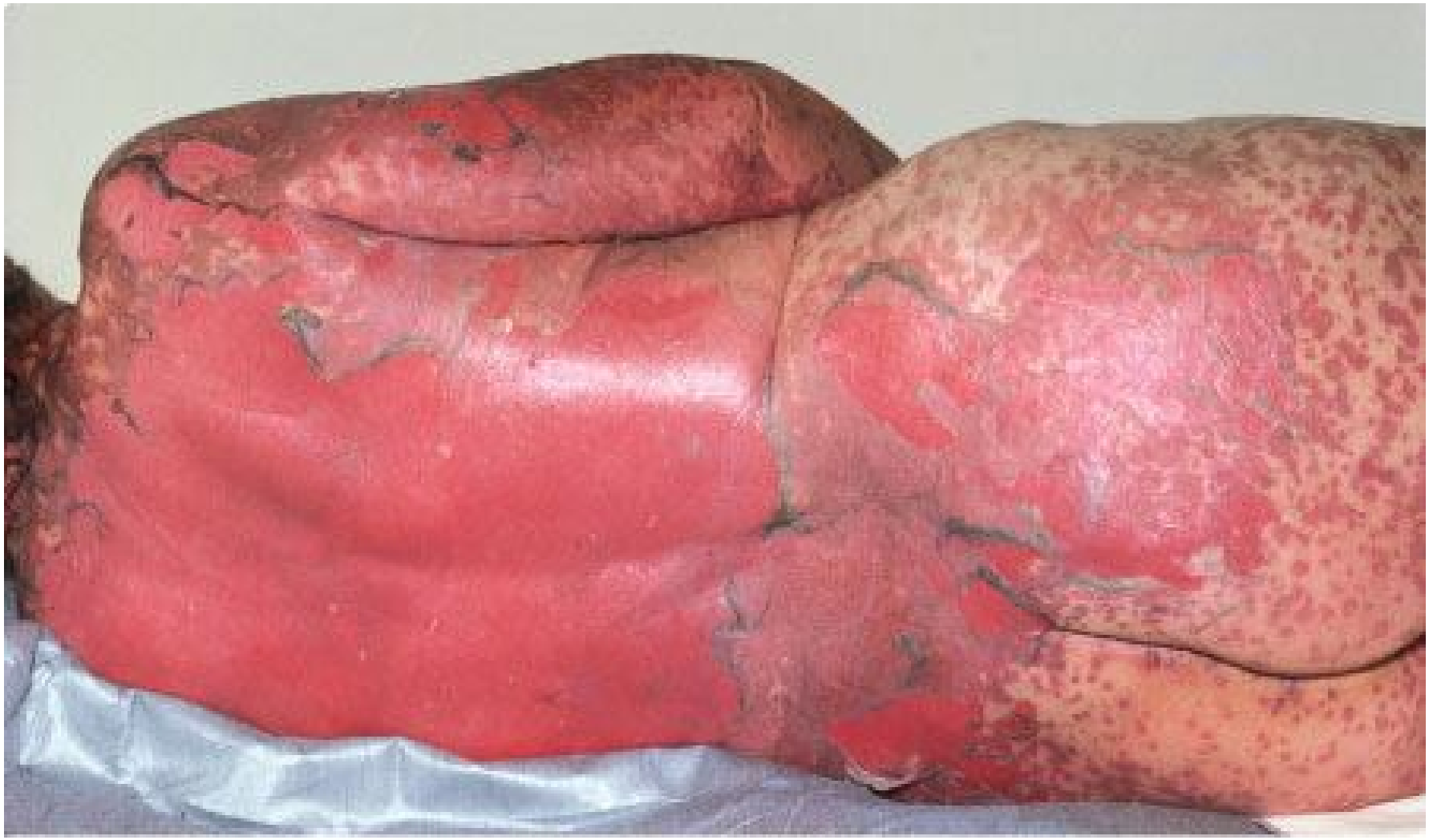










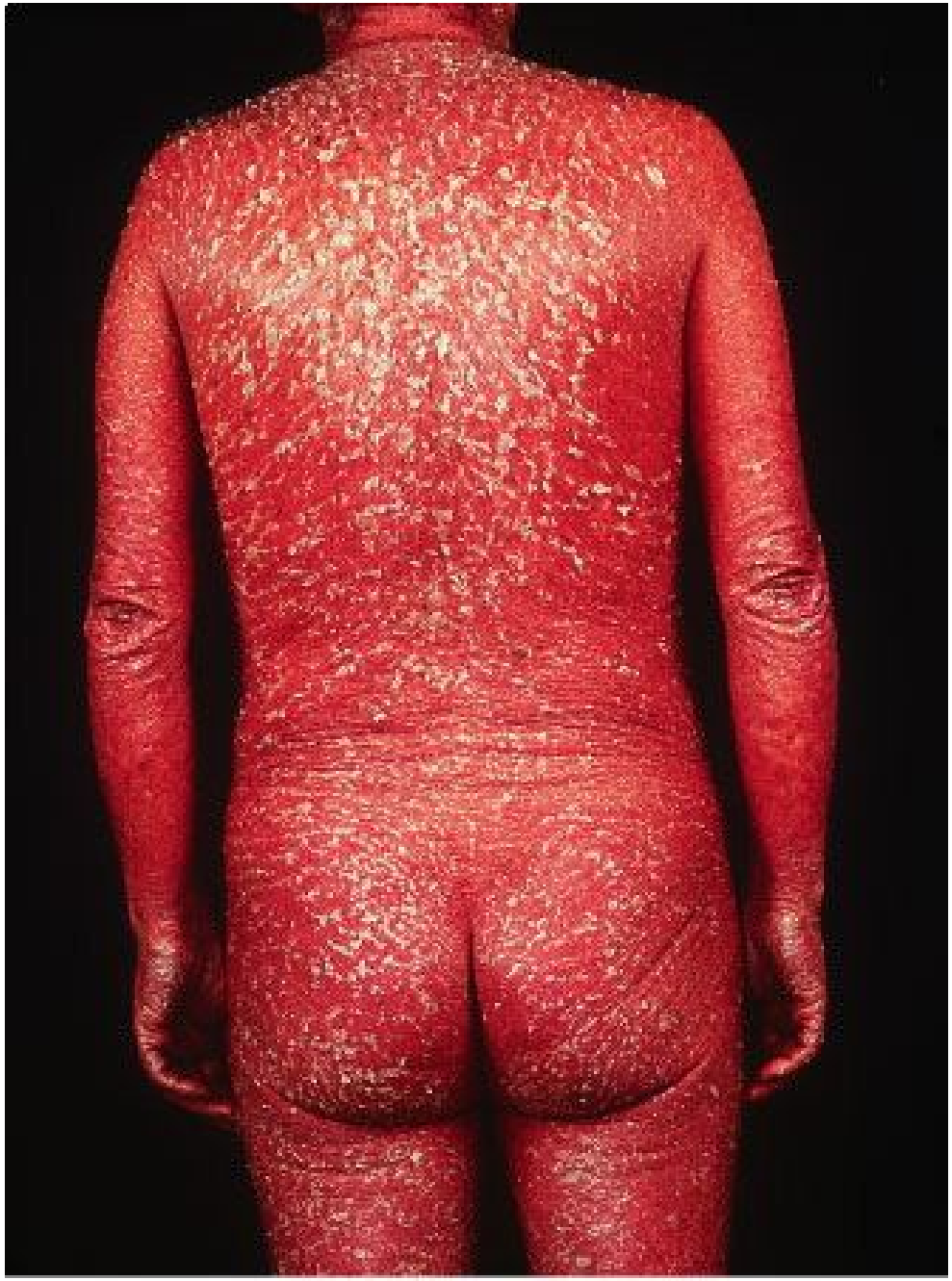


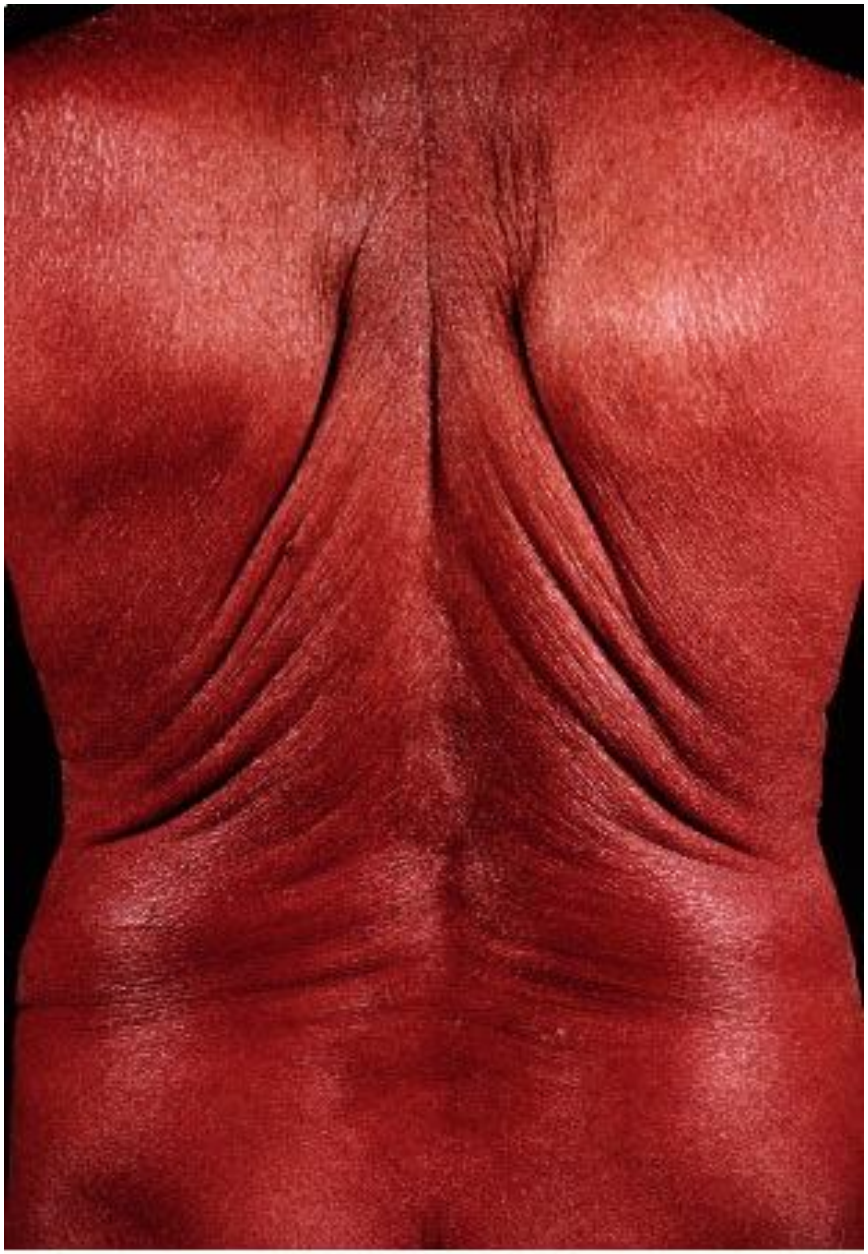
Drugs Associated with Stevens-Johnson Syndrome and Toxic Epidermal Necrolysis

Drugs Most Frequently Associated*	Drugs Also Associated
Sulfadoxine	Cephalosporins
Sulfadiazine	Fluoroquinolones
Sulfasalazine	Vancomycin
Co-trimoxazole	Rifampin
Hydantoins	Ethambutol
Carbamazepine	Fenbufen
Barbiturates	Tenoxicam
Benoxaprofen	Tiaprofenic acid

Drugs Associated with Stevens-Johnson Syndrome and Toxic Epidermal Necrolysis

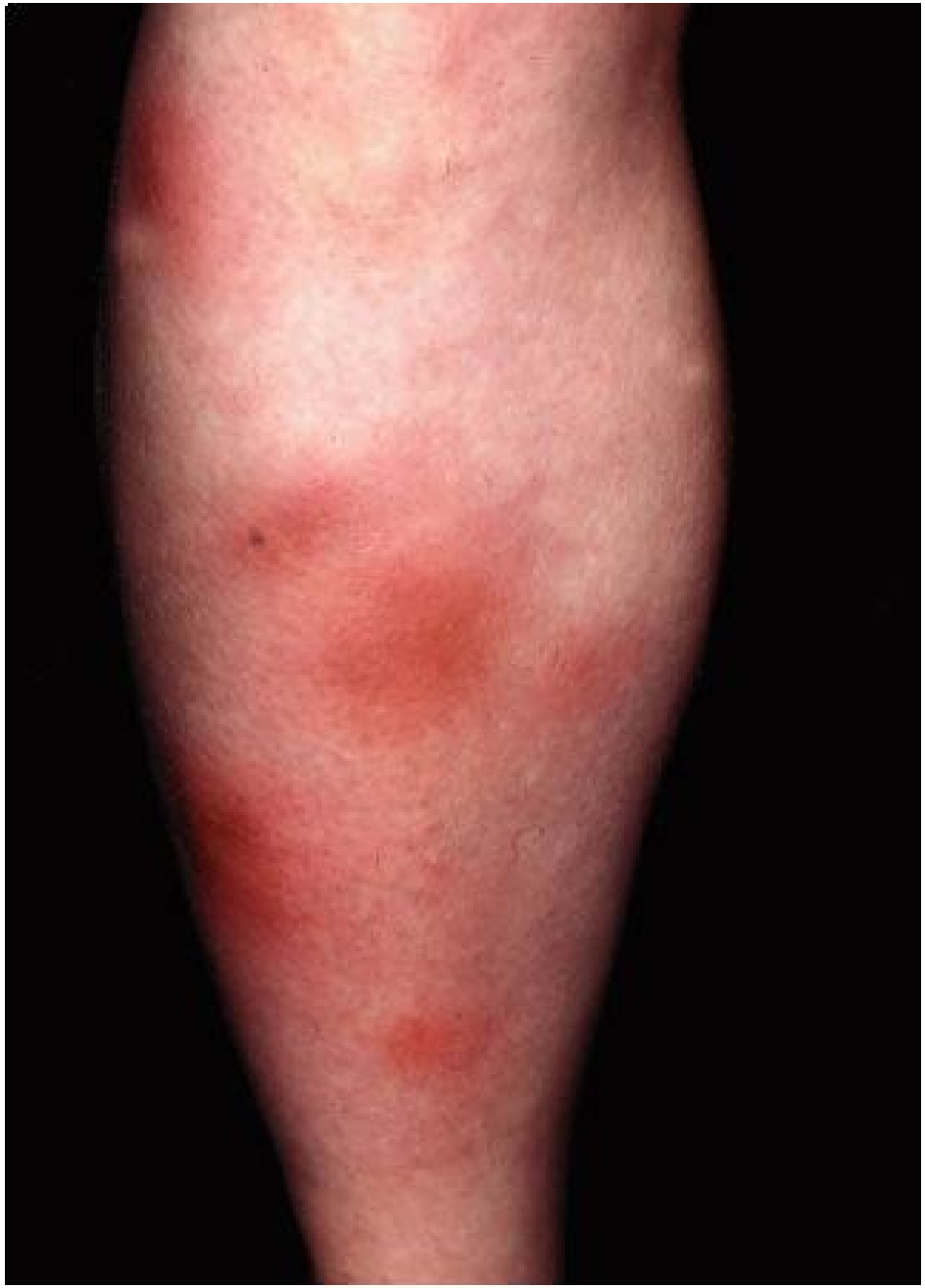
Drugs Most Frequently Associated*	Drugs Also Associated
Phenylbutazone	Diclofenac
Isoxicam	Sulindac
Piroxicam	Ibuprofen
Chlormezanone	Ketoprofen
Allopurinol	Naproxen
Amithiozone	Thiabendazole
Aminopenicillins	





Drugs That Cause Exfoliative Dermatitis

Allopurinol*
Aminoglycosides
Antimalarials
Aztreonam
Bactrim Barbiturates
Calcium channel blockers
Captopril
Carbamazepine
Dapsone
Ethambutol
Indinavir
Isoniazid
Phenytoin
Rifampicin
Sulfasalazine
Sulfonamide antibiotics
Sulfonylureas
Thiazide diuretics
Vancomycin



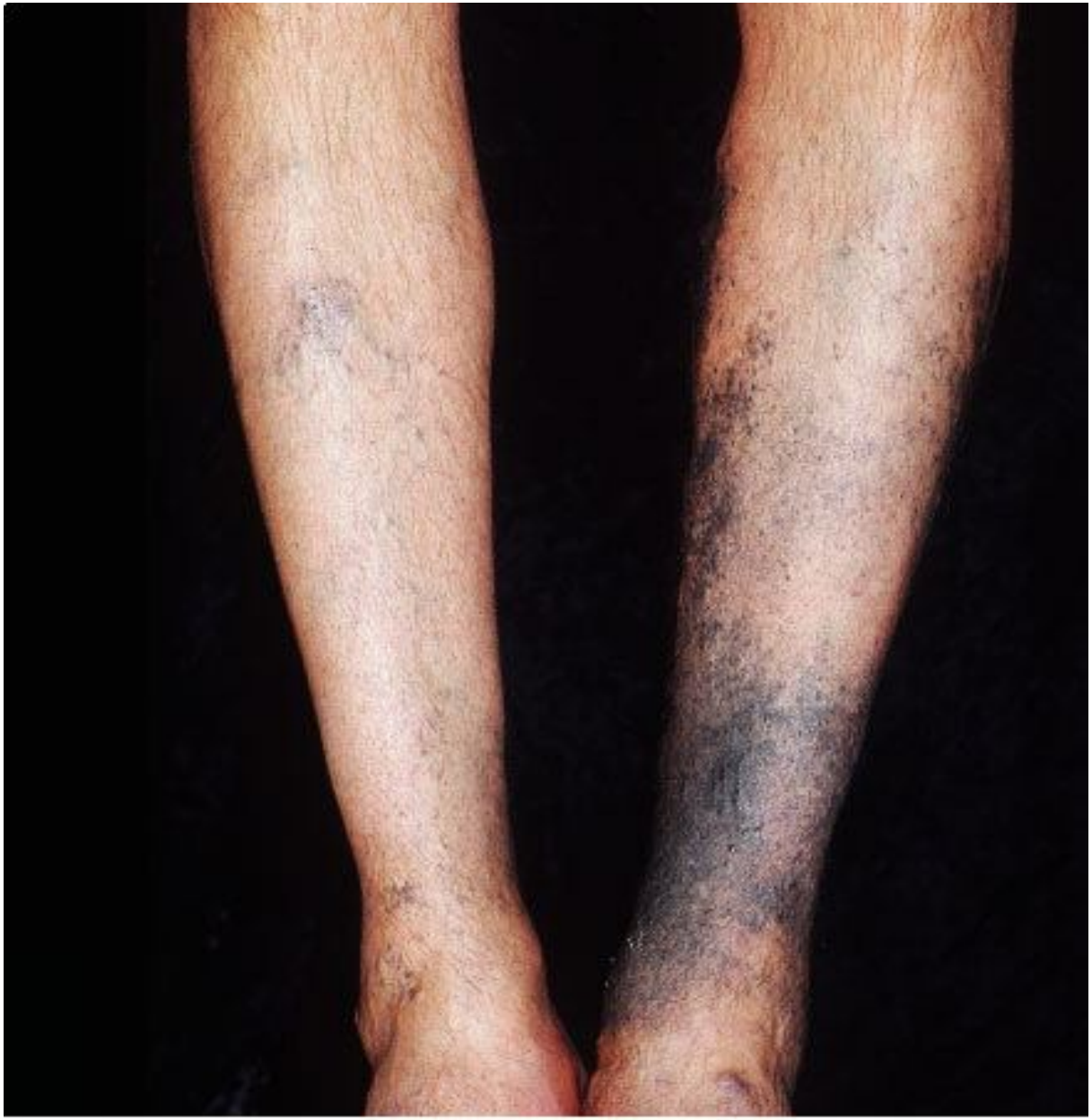
Drugs causing erythema nodosum

Sulfonamides

Bromides and iodides

Oral contraceptives

Other: minocycline, gold salts, penicillin, salicylates



The following drugs are capable of inducing hyperpigmentation of skin and/or mucosa:

Antiarrhythmic: amiodarone

Antimalarial: chloroquine, hydroxychloroquine, quinacrine, quinine

Antimicrobial: minocycline, clofazimine, zidovudine

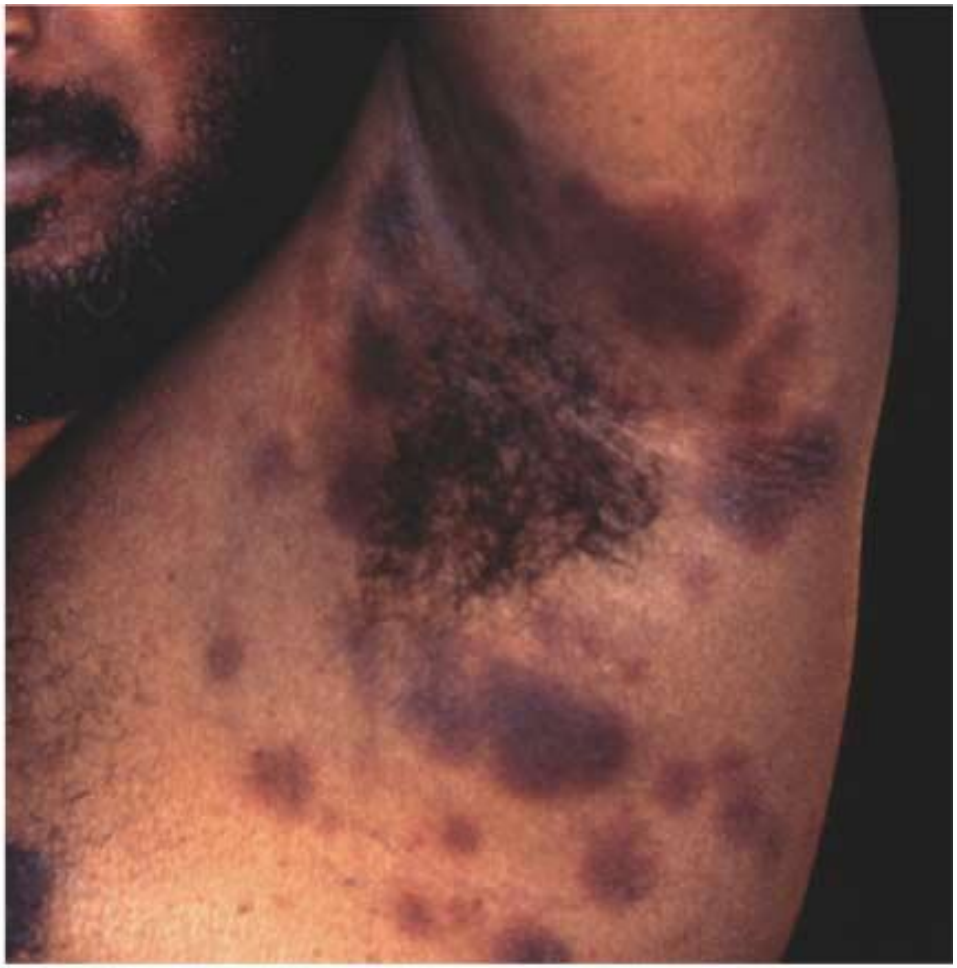
Antiseizure: hydantoins

Cytostatic: bleomycin, cyclophosphamide, doxorubicin, busulfan, 5-fluorouracil, dactinomycin

Heavy metals: silver, gold, mercury

Hormones: adrenocorticotropic hormone (ACTH), estrogen/progesterone

Psychiatric: chlorpromazine



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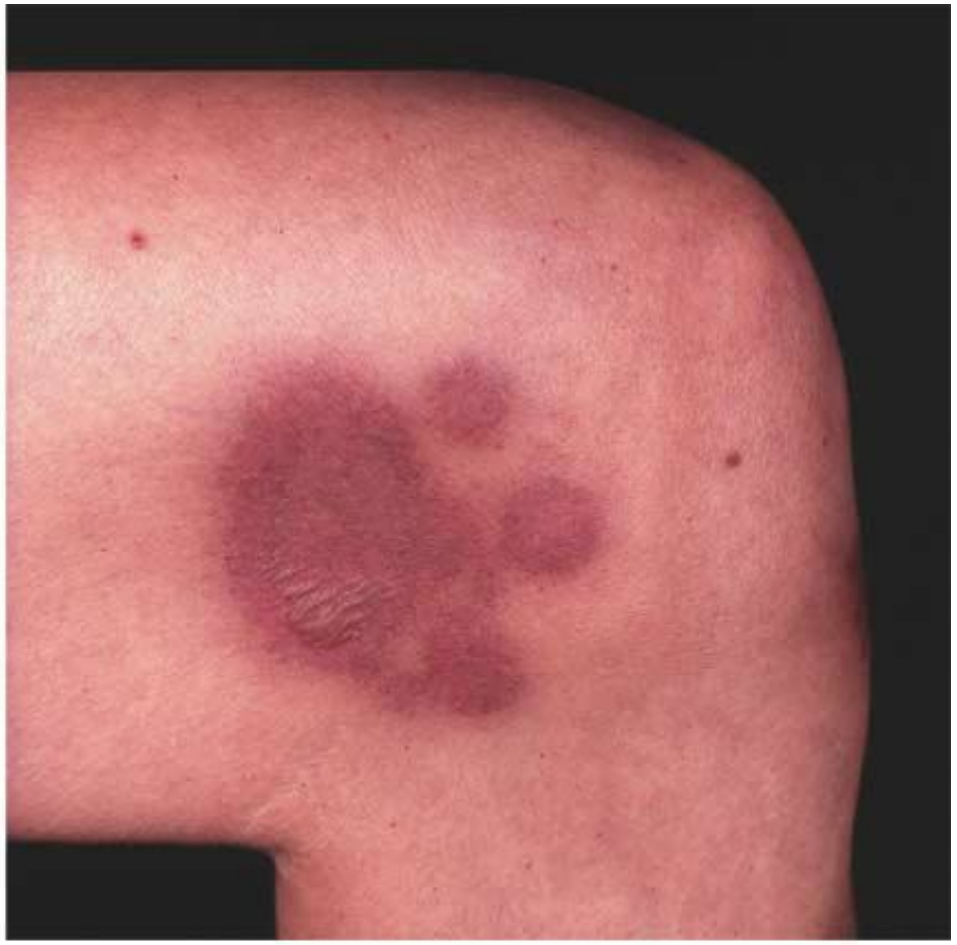


A

Most Commonly Implicated Agents in Fixed Drug Eruptions

Antimicrobial agents

Tetracyclines (tetracycline, minocycline)

Sulfonamides, including "nonabsorbable" drugs;

cross-reactions with antidiabetic and diuretic sulfa drug may occur

Metronidazole

Nystatin

Most Commonly Implicated Agents in Fixed Drug Eruptions

Anti-inflammatory agents

Salicylates
NSAIDs
Phenylbutazone
Phenacetin

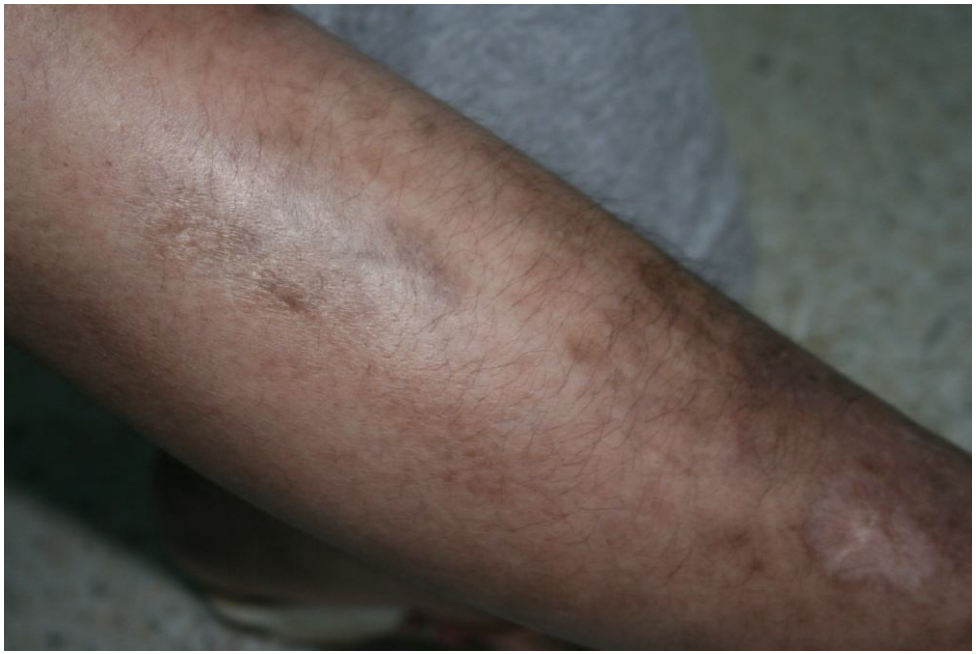
Psychoactive agents
Barbiturates, including Fiorinal Quaalude, Doriden

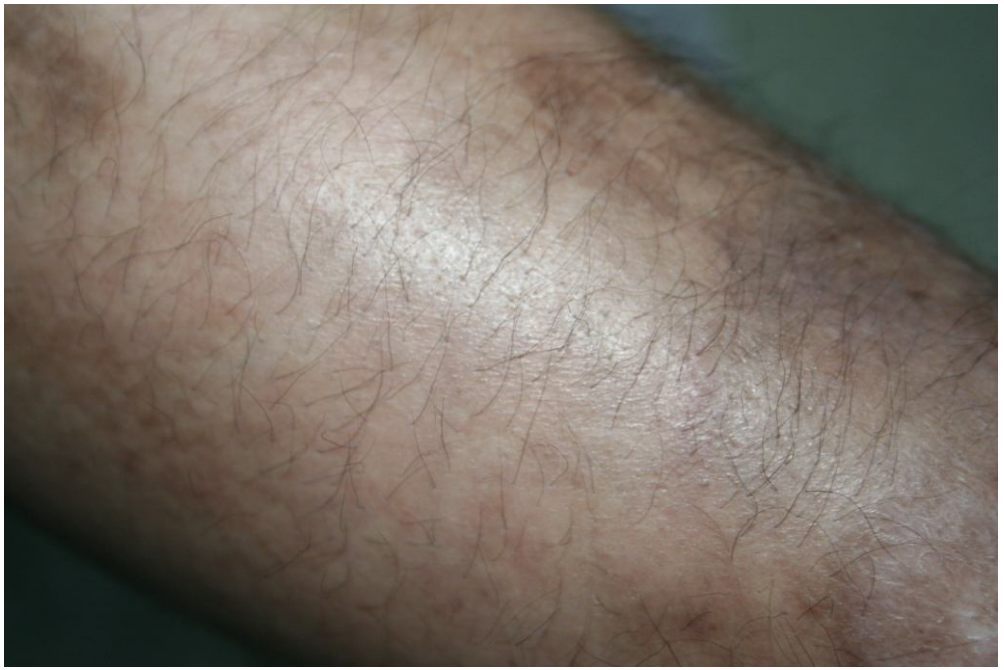
Oral contraceptives

Quinine (including quinine in tonic water), quinidine

Phenolphthalein

Food coloring: in food or medications





Drug-induced Hypertrichosis

minoxidil (80% of those treated),
diazoxide (50%),
phenytoin (occurs after 2–3 months of treatment),
cyclosporine (80%),
PUVA,
oral glucocorticoids,

Stevens- Johnson syndrome (SJS)& Toxic epidermal necrolysis (TEN)

SJS&TEN

severe idiosyncratic rxn, triggered by medications

fever, mucocutaneous lesions → necrosis

แยกจากกันโดย % of BSA

SJS

less severe condition

skin sloughing < 10% of BSA

malaise, fever → erythematous/purpuric plaques

mucosal involvement ≥ 2 sites

TEN (Lyell's syndrome)

sloughing of skin ≥ 30%

fever > 39 °C , malaise → diffuse erythema

* skin pain → necrosis

~ burn

SJS/TEN overlap syndrome

BSA 10-30%

Etiologies

Medication ➔ SJS&TEN in both adults, children

In pediatrics case of SJS : Mycoplasma pneumonia, HSV infection

Medications

Allopurinols

Antibiotics (sulfonamides >> penicillins > cephalosporins)

Antipsycotics & Antiepileptics

NSAIDs

Risk factors

1.HIV infection 3-4 เท่า : multiple medications
slow acetylations
immune dysregulation
concomitant infection

2. Genetic factors
HLA-B *1502 : carbamazepine, other aromatic convulsant
Lower N-acetylation capacity (slow acetylation)

3. Malignancy