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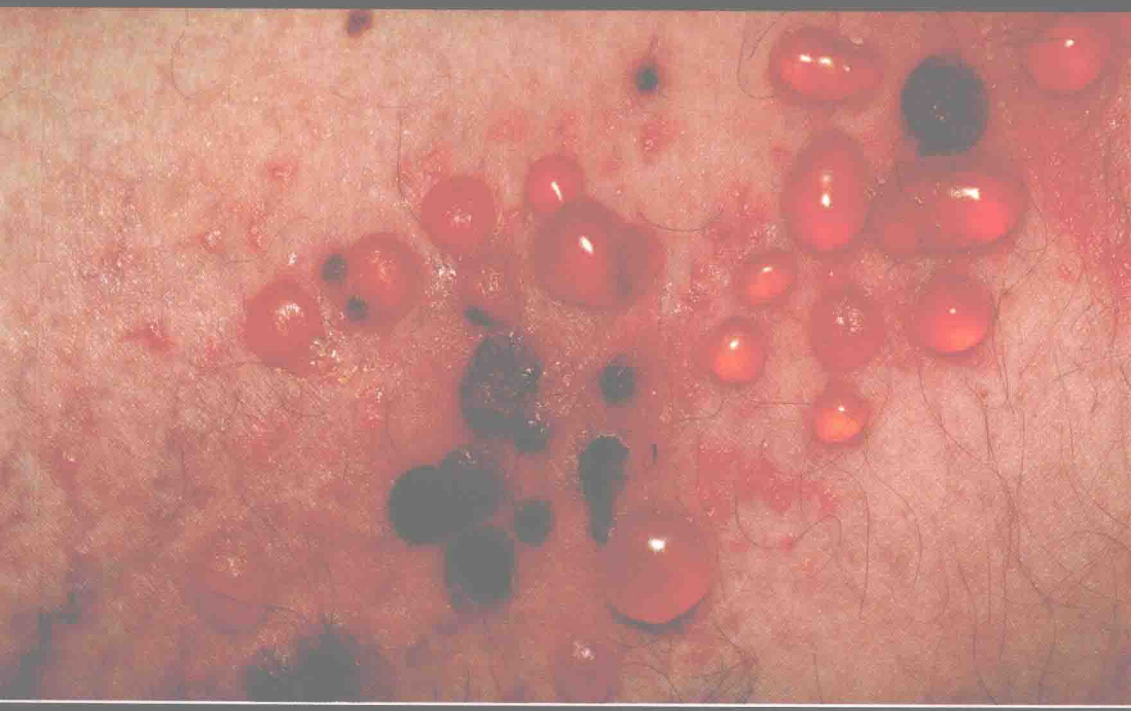

Dermatology Essentials

Jean L. **Bolognia**
Julie V. **Schaffer**
Karynne O. **Duncan**
Christine J. **Ko**

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Dermatology Essentials

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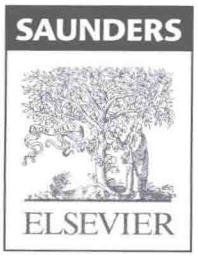

Preface

The goal of our *Dermatology Essentials* handbook is to present the broad spectrum of cutaneous diseases in a manner that is straightforward and logical while at the same time maintaining a necessary level of sophistication. The text portion of each section is relatively brief and easy to review, with schematics and tables providing additional and more detailed information. Throughout the handbook are algorithms that present a practical approach to evaluation, differential diagnosis, and treatment of skin disorders. The clinical photographs were chosen with two key objectives in mind – to provide characteristic examples of specific diseases and to offer key teaching points. It is our hope that this handbook will improve the dermatologic care of patients and provide clinicians with greater confidence as they approach patients with cutaneous diseases.

Acknowledgments

We wish to thank all the dermatologists whose clinical photographs are used in this handbook as well as the textbook *Dermatology*. In particular we thank Kalman Watsky, MD, whose photographs appear throughout the book as well as on the front cover. The team at Elsevier has provided enormous support, including Joanne Scott, Humayra Rahman Khan, Dan Hays, Joanna Souch and Caroline Jones. Special thanks goes to Russell Gabbedy who has always delivered on his promises and found humor in our recurring demands.

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Chapter 58, Nail Disorders—Nail photos are courtesy of Antonella Tosti, the Yale Dermatology Residents' Slide Collection, Julie V. Schaffer, and Jean L. Bolognia.

Dedication

To our families, in particular our husbands – Dennis, Andy, David and Peter – who provided the indispensable support required to complete this book, from serving as sounding boards to creating quiet time in busy households.

List of Abbreviations

ABI	Ankle-brachial index
AI-CTD	Autoimmune connective tissue disease
AK	Actinic keratosis
ANA	Antinuclear antibody
ART	Anti-retroviral therapy
BB	Broadband
BCC	Basal cell carcinoma
BID	Two times daily
BSA	Body surface area
CBC	Complete blood count
CMV	Cytomegalovirus
CNS	Central nervous system
CO	Carbon monoxide
COPD	Chronic obstructive pulmonary disease
CRP	C-reactive protein
CS	Corticosteroids
CSF	Cerebrospinal fluid
CT	Computed tomography
DDT	Dichlorodiphenyltrichloroethane (an insecticide)
Dx	Diagnosis
DDx	Differential diagnosis
DEET	N, N-diethyl-meta-toluamide
DFA	Direct fluorescence antibody
DHEAS	Dehydroepiandrosterone sulfate
DM	Diabetes mellitus
DVT	Deep vein thrombosis
EBV	Epstein-Barr virus
ECG	Electrocardiogram
EGFR	Epidermal growth factor receptor
ELISA	Enzyme-linked immunosorbant assay
EMG	Electromyography
ESR	Erythrocyte sedimentation rate
G6PD	Glucose-6-phosphate dehydrogenase
GI	Gastrointestinal
GVHD	Graft-versus-host disease
HIV	Human immunodeficiency virus
HPV	Human papillomavirus
HSCT	Hematopoietic stem cell transplant
HSV	Herpes simplex virus
ICU	Intensive care unit
IFE	Immunofixation electrophoresis
IL	Interleukin
IM	Intramuscularly
IV, iv	Intravenous
IVIg	Intravenous immunoglobulin
KA	Keratoacanthoma
KOH	Potassium hydroxide
LDH	Lactate dehydrogenase
LE	Lupus erythematosus
LFTs	Liver function tests
LPLK	Lichen planus-like keratosis
MEN	Multiple endocrine neoplasia
MHC	Major histocompatibility complex
MRA	Magnetic resonance angiography
MRI	Magnetic resonance imaging
NB-UVB	Narrowband UVB
NK	Natural killer
NMSC	Non-melanoma skin cancer
NSAIDs	Nonsteroidal anti-inflammatory drugs
OTC	Over-the-counter

PAS	Periodic-acid Schiff
PCR	Polymerase chain reaction
PO, po	Per os (oral administration)
PPD	Purified protein derivative
PUVA	Psoralen plus ultraviolet A light
RBC	Red blood cell
RPR	Rapid plasma reagin (test for syphilis)
Rx	Treatment
SC, sc	Subcutaneous
SCC	Squamous cell carcinoma
SLE	Systemic lupus erythematosus
SPEP	Serum protein electrophoresis
SSRIs	Selective serotonin reuptake inhibitors
STDs	Sexually transmitted diseases
TB	Tuberculosis
TCAs	Tricyclic antidepressants
TID	Three times daily
TNF	Tumor necrosis factor
TSH	Thyroid stimulating hormone
TST	Tuberculin skin test
UVA	Ultraviolet A
UVB	Ultraviolet B
UVA1	Ultraviolet A1 (340-400 nm)
UVR	Ultraviolet radiation
VDRL	Venereal Disease Research Laboratory (test for syphilis)
VZV	Varicella zoster virus
XRT	Radiation therapy

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For further reading and references, a cross-reference is made at the end of each chapter to the corresponding topic in *Dermatology Third Edition*, Bolognia, Jorizzo, & Schaffer, editors. ISBN 9780723435716, published by Elsevier.

Basic Principles of Dermatology

1

- In the approach to the patient with a dermatologic disease, it is important to think initially of broad categories (Fig. 1.1); this allows for a more complete differential diagnosis and a logical approach.
- Key elements of any clinical description include distribution pattern (Table 1.1; Figs. 1.2 and 1.3), type of primary lesion and its topography (Table 1.2; Fig. 1.4), secondary features (Table 1.3), and its consistency via palpation (Tables 1.4 and 1.5).
- If atrophy is present, it should be categorized as epidermal, dermal, and/or subcutaneous (Fig. 1.5).
- Color is also an important feature, and this can be influenced by the skin phototype

DISTRIBUTION PATTERNS OF CUTANEOUS LESIONS

- Generalized versus localized (see Fig. 1.2)
- Unilateral versus bilateral
- If bilateral, symmetric or asymmetric pattern
- Random versus linear (see Fig. 1.3) or grouped (e.g. herpetiform, clustered)
- Special patterns – photodistributed versus photoprotected; along cleavage lines; areas of occlusion; areas of pressure; areas in contact with allergens or irritants

Table 1.1 Distribution patterns of cutaneous lesions.

CLASSIFICATION SCHEME FOR DERMATOLOGIC DISORDERS

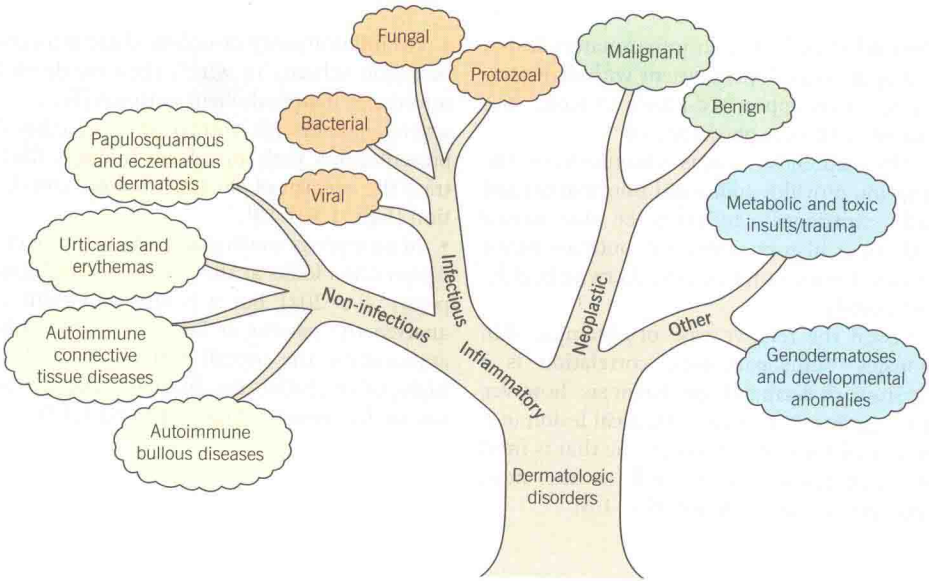

Fig. 1.1 Classification scheme for dermatologic disorders. This scheme is analogous to the structure of a tree with multiple branch points terminating in leaves.

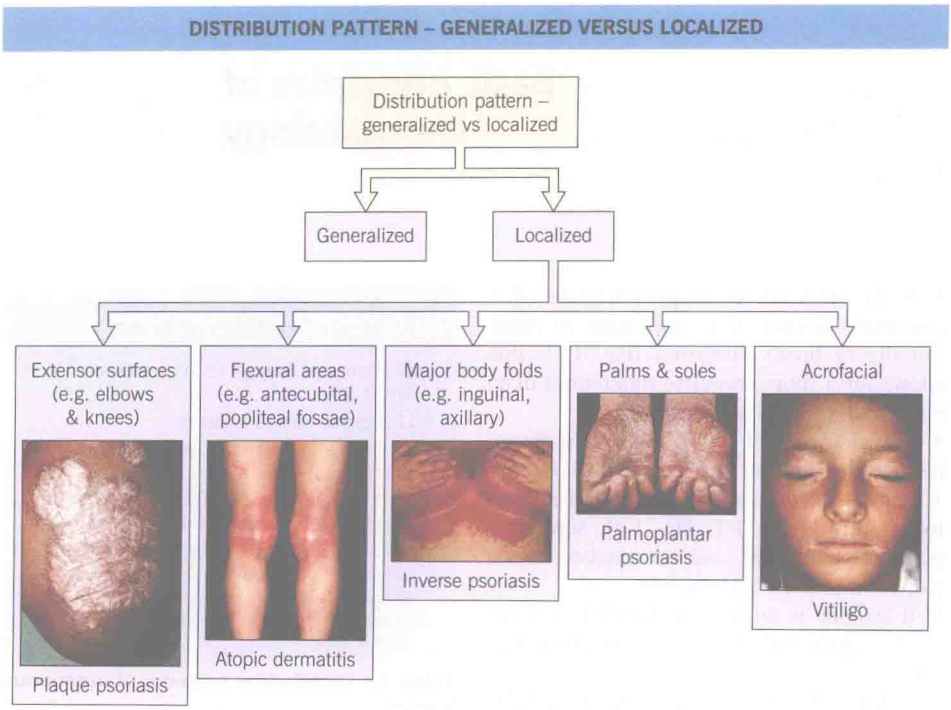

Fig. 1.2 Distribution pattern – generalized versus localized. In addition to these patterns, involvement of multiple mucosal sites can be seen. *Photographs courtesy, Peter C. M. van de Kerkhof, MD, Thomas Bieber, MD, and Julie V. Schaffer, MD.*

(Appendix) such that an inflammatory lesion that appears pink in a patient with skin phototype I may appear red-brown to violet in a patient with skin phototype IV.

- The acuteness versus chronicity of the eruption provides additional information and with experience can often be determined without a history; Table 1.6 outlines major causes of acute eruptions in otherwise healthy individuals.
- Given the relative ease of obtaining skin biopsies, clinicopathologic correlation is a keystone of dermatologic diagnosis; however, it is important to choose the ideal lesion (e.g. in an inflammatory disorder, one that is fresh but well-developed), as well as the most appropriate type of biopsy (Fig. 1.6).
- For inflammatory disorders, there is a classification schema in which they are divided into major histopathologic patterns (Fig. 1.7); several side-by-side comparisons of clinical presentations with histologic findings illustrate the concept of clinicopathologic correlation (Figs. 1.8–1.13).
- In an analogy to dermatopathology, the clinician often looks at the patient at 'medium-power' (i.e. 20×), but it is also important to analyze the patient at low-power (4×), thus appreciating the overall pattern, as well as high-power (100×); the latter is aided by the use of dermoscopy (Figs. 1.14 and 1.15).

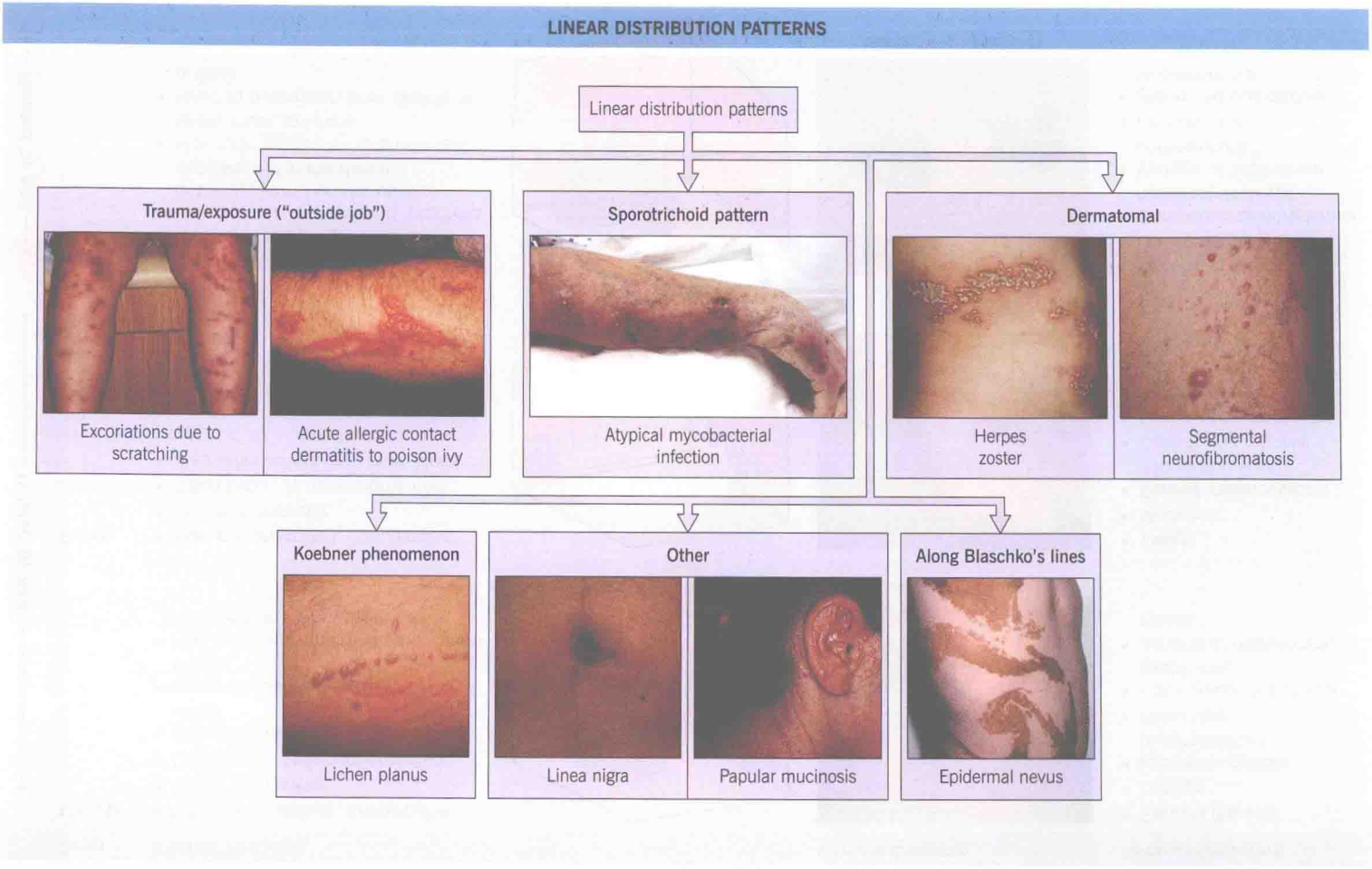

Fig. 1.3 Linear distribution patterns. *Photographs courtesy, Kathryn Schwarzenberger, MD, Jean L. Bolognia, MD, Whitney High, MD, Joyce Rico, MD, and Louis Fragola, MD.*