ADVANCES IN

DERMATOLOGY

EDITED BY

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VOLUME 1 • 1986

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VOLUME 1 • 1986

YEAR BOOK MEDICAL PUBLISHERS, INC.
CHICAGO

International Standard Serial Number: 0882–0880
International Standard Book Number: 0–8151–1412–5

Sponsoring Editor: Elizabeth Sugg
Manager, Copyediting Services: Frances M. Perveiler
Production Manager: Henry E. Nielsen
Proofroom Supervisor: Shirley E. Taylor

Preface

THIS INAUGURAL volume of *Advances in Dermatology* is a continuation of our efforts as an editorial board. Formerly this group of editors worked with G. K. Hall and Company publishing two volumes of *Current Issues in Dermatology*. We are most pleased that Year Book Medical Publishers, Inc., has felt that our efforts warranted inclusion in their successful *Advances* series.

Our goal in this series is to publish, in a timely fashion, state-of-the-art information about our ever changing specialty. Thus, we again are including updates on new diseases, new developments, and new therapies; always attempting to address the controversial topics within this framework.

We have continued to run an editorial commentary with each article that highlights and focuses our discussion on the new or controversial areas within the section. In this effort, we have again enlisted the help of four distinguished colleagues as guest commentators for this volume: Denny Tuffanelli, M.D., Deborah Z. Altschuler, M.D., Leslie R. Kenney, M.D., and Rhoda S. Narins, M.D.

Each year our editorial board invites leading experts to contribute papers that coincide with the objectives of the series and that reflect advances of current interest and pertinence to the practice of dermatology. Volume I of *Advances in Dermatology* provides:

1. Discourses on new techniques and therapies (psoriasis therapies, lipo-suctions, x-ray diffraction, recombinant DNA technology, and nail surgery).
2. Discussion of some controversial topics (subsets of lupus erythematosus, immunofluorescence, and dietary therapy of atopic dermatitis).
3. State-of-the-art information (electron microscopy applications, dermal dendrocytes, and pediculosis).
4. An update on some issues of continuing importance (graft-versus-host disease, epidermal cell thymocyte-activating factor, and childhood viral disease).

We hope that the information in *Advances in Dermatology* will con-

tribute to an enhanced ability to diagnose and treat skin disease and to a deeper understanding of our specialty. Then this new knowledge can translate into better care for our patients. The response to the former publication was heartening, and we trust that this inaugural volume of *Advances in Dermatology* will meet your expectations.

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Part I—Internal Medicine: Therapeutics and Skin Disease

Edited by
JEFFREY P. CALLEN, M.D.

Specific Cutaneous Manifestations of Internal Malignancy

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IN MOST CASES, internal cancer is clinically evident according to the organ of origin, for example, a lump in the breast is detected, hemoptysis or melena may uncover bronchogenic or colonic carcinoma, respectively; or a persistently palpable peripheral lymph node may indicate lymphoma. Alternatively, a cancer from within can make its presence known by metastasizing. Organs other than skin are involved by metastases more commonly; they include, for example, liver, lung, bone, and brain. Consequently, hepatomegaly, multiple nodules seen on a chest x-ray film, pathologic fracture, or focal neurologic signs may be clinical clues to diagnosis. Skin as with other organs can be affected by direct invasion, lymphatic spread, or hematogenous dissemination. Carcinoma (squamous cell carcinoma, adenocarcinoma, and undifferentiated forms), leukemia, lymphoma (Hodgkin's and non-Hodgkin's), plasma cell dyscrasias, and sarcoma can all affect the integument with tumor deposits; when they do, they are referred to as specific cutaneous manifestations of underlying cancer. Often these internal cancers can affect the skin specifically in clinically identifiable patterns. When suspicious skin lesions are encountered, biopsying them can be helpful because histopathologically the tissue of origin (primary neoplasm) may be recognizable, albeit, occasionally less well differentiated. Knowing what the tissue of origin is then allows the clinician to predict prognosis and recommend appropriate therapy. Nonspecific cutaneous manifestations of internal malignancy include remote or paraneoplastic effects as well as infectious complications induced by therapeutic immunosuppression. Non-

0882-0880/86/0001-0003-0042-$04.00

specific signs of neoplasia are usually more frequent than specific ones, particularly with leukemia, lymphoma, and plasma cell dyscrasias. The discussion at hand deals with specific cutaneous manifestations of internal malignancy.

Skin Metastases: Epithelial Malignant Spread Including Local Invasion

In comparison with other organs, the skin is involved with metastatic tumor less frequently. Based on a number of autopsy studies,[1–5] only between 1% and 5% of patients with internal malignancy will be affected with cutaneous metastases (Table 1). The most prevalent internal malignancies in men and women are the ones that most commonly involve the skin. Consequently, all of the retrospective studies chronicling the primary organs of involvement agree that lung cancer in males and breast cancer in females are the most common giving rise to skin lesions. Abrams et al.[2] found 18.6% of patients with breast cancer at autopsy to have cutaneous secondary deposits, whereas Warren and Witham[6] found 37.7% of their deceased patients to have cutaneous evidence of breast carcinoma. Of these women with secondary cutaneous deposits, as many as 69% of them had breast carcinoma.[7] Those men with bronchogenic carcinoma are less likely to develop skin metastases than are women with breast cancer; figures range from 1.6% to 7.5% for those patients with lung cancer.[8–10] However, of these men with carcinoma metastatic to skin, 50% have their origin in the lung.[5] Other tumors that may go to skin showing sexual preference originate in the ovary and oral cavity.[7] Oral cavity cancer is seen more commonly in males for the same reason as is pulmonary malignancy: there is a significant relationship with smoking. Other primary cancers that not infrequently metastasize to skin include those of the gastrointestinal tract (stomach and colon) and kidney.[4, 5, 7] The aforementioned malignancies account for between 67% (males) to 87% (females) of all cutaneous metastases.[7] Malignant melanoma, which, of course, is not ordinarily of internal origin, metastasizes more frequently than the more common primary epithelial cutaneous cancers. An autopsy study on malignant melanoma indicates that cutaneous metastases occur in 11% of patients.[11]

Most patients with metastatic epithelial malignancies are in the middle to elderly age group, that is, older than 40 years.[12] Patients with melanoma and certain soft tissue tumors such as neuroblastoma present at an earlier age.

Clinical patterns of metastatic spread to skin depend on multiple factors such as organ of origin, whether tumor is lymphatic or blood borne, and local factors such as trauma induced by surgery. In gen-

TABLE 1.—INTERNAL MALIGNANCIES METASTATIC TO SKIN: CLINICOPATHOLOGIC CORRELATION

PRIMARY ORGAN	SEX	CLINICAL APPEARANCE	LOCATION	PRESENTATION	HISTOLOGIC PATTERN
Breast	F only	Nodular, cellulitic, morpheaform	Anterior chest wall, scalp	Late	Adenocarcinoma carcinoma, undifferentiated carcinoma
Lung	M > F	Nodular, cellulitic	Chest wall, scalp	Early	Undifferentiated carcinoma, squamous cell carcinoma, adenocarcinoma
Kidney	M > F	Angiomatous nodule, pulsatile	Scalp	Early	Clear cells (glycogen & lipid), adenocarcinoma, vascular stroma
Oral cavity	M > F	Nodular	Face & neck	Late	Squamous cell carcinoma
Colonorectal	M = F	Nodular, cellulitic	Anterior abdomen, umbilicus, pelvic region	Anytime	Adenocarcinoma
Stomach	M = F	Nodular, morpheaform, cellulitic	Umbilicus, anterior abdomen	Anytime	Adenocarcinoma, signet ring cells
Ovary	F only	Nodular, cellulitic	Umbilicus, abdomen		Adenocarcinoma, papillary, well differentiated; psammoma bodies
Thyroid	M = F	Pulsatile nodule	Anterior neck	Anytime	Adenocarcinoma or solid (medullary) with amyloid stroma
Liver	M = F	Nodular	Anywhere	Anytime	Adenocarcinoma containing bile