



# LYMPH NODE METASTASES

## INCIDENCE AND SURGICAL TREATMENT IN NEOPLASTIC DISEASE

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OXFORD UNIVERSITY PRESS

LONDON NEW YORK TORONTO

## PREFACE

The treatment of a case of neoplastic disease inevitably involves a decision in regard to the proper method of management of the regional lymph nodes. The decision should be based upon accurate information as to the likelihood of metastatic involvement, and as to the curability of involved nodes when they are present. Surgical curability of node involvement must be based further on accurate knowledge of the anatomical relations of the nodes which are likely to be involved, and detailed familiarity with the appropriate operative procedures for their removal.

Much of this knowledge and information is available and accessible. In general, however, the complete solution of each problem of lymph node management involves considerable research among widely separated sources. One must turn to the pathologists for knowledge of the behavior of a tumor in regard to lymph node metastasis; to the anatomists for description of the regional lymphatics; to the compendiums of surgical technique for description of standard operative procedures; and to the clinicians and statisticians for end-result studies bearing on the curability. Actually, the problem is rarely approached in this thorough fashion. Decisions are made upon the basis of tradition, opinion, clinical impression, partial facts, and prejudices, and are modified on equally inadequate grounds. Numerous successful attempts have been made to bring together the necessary data for such decisions in regard to carcinomas of individual regions, but many of these studies are lost or overlooked in the mass of current literature.

It has been our purpose to assemble briefly in the present volume the available information in regard to the surgical management of metastases in lymph nodes, the incidence of node involvement in various kinds of neoplastic disease, the factors affecting the incidence, the possibility of cure of metastases by surgical measures, and the methods of operating on lymph node areas. Part I consists of a summary of the anatomy of the lymphatics in so far as it is of

## FOREWORD

Success in treatment of malignant disease hinges on knowledge of its course. Since tumors spread in the human body only by actual dissemination of viable cells, a contribution to our knowledge of the mode of that spread is of major importance. Such a contribution is offered in the present study of metastasis to lymph nodes.

Each surgeon or radiologist concerned with treating cancer has learned to a greater or less degree by experience in what sites he may expect to find involved nodes in a given case. This volume makes accessible to all, the wide experience of the authors and their colleagues in this field.

The lymphatic pathways are the most important routes of metastasis of carcinoma, and a not infrequent, although often overlooked, means of spread in sarcoma. While metastases occur through blood vessels, this is much rarer than through the lymphatics.

Not only does the site of a tumor bear on its probable metastases, but its size, histologic grade of malignancy, and various clinical factors must also be taken into consideration. Palpation is an unreliable, although time-honored, guide in the determination of the presence or absence of metastases, as is demonstrated in the present studies. With the aid of the data presented, the value of dissections of regional lymph nodes, and the desirable extent of dissection can be more clearly determined than by other means now available.

Only those who have dealt with the tedious and exacting compilation and interpretation of statistical data can fully appreciate the work that has gone into this volume. Fortunately all those who have to do with cancer therapy can appreciate the help that Dr. Taylor and Dr. Nathanson have made available to them.

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surgical significance. This summary is based upon a comparison of the various standard anatomical tests and special studies, with modifications suggested by our own experience and that of others in dealing with various regional cancers.

Part II consists of a review of neoplasms of particular regions, with analyses of the incidence of node metastasis, the indications for regional dissection, and the possibility of cure by surgical measures. It is based upon recent experience at the Collis P. Huntington Memorial Hospital, the Massachusetts General Hospital, and the Pondville Hospital (Massachusetts Department of Public Health). The section is amplified with the experiences of others published in the current medical literature. No exhaustive attempt has been made to appraise the adequacy or the role of radiation therapy of regional lymph node metastases, although the problem has been considered briefly in some of the chapters. Evaluation of radiation therapy is complicated by the rapid and frequent changes in technique; and many follow-up studies are undependable because of lack of pathological confirmation of involvement, or because of too short a period of observation.

The data assembled here should form a useful basis for evaluating other methods of treatment. The studies were largely restricted to those types of neoplasm in which we believe that surgery is the best method of dealing with the node metastases. The results which may be secured by dissections are presented. It is to be hoped and expected that better methods may be evolved, and that better results will follow. It may also be hoped that benefit may accrue from a wider and more intelligent application of the methods here described, through a sharpening of the criteria of operability and through improvement and standardization of operative techniques.

Part III consists of descriptions of the standard operations which have been found most satisfactory. The dissections are based upon orthodox procedures from the medical literature, with modifications which have been found desirable as a result of our own experiences and studies.

Grateful acknowledgment is made to our colleagues on the staffs of the hospitals for the privilege of studying their cases, and for valuable suggestions at all times. We are especially indebted to our surgical chiefs, Dr. Channing C. Simmons, Dr. Ernest M. Daland,

Dr. Arthur W. Allen, and Dr. Edward D. Churchill for helpful advice; to Dr. Herbert L. Lombard for supervision of statistical data; and to Dr. Joseph C. Aub for encouragement and criticisms in the preparation of the manuscript.

We are indebted to Dr. Shields Warren, Dr. Olive Gates, and Dr. Ben Castleman, not only for suggestions and advice, but also for review of a considerable amount of the pathological material for histological grading. Help was received from Dr. Henry Jaffe in analysis of the data dealing with carcinoma of the tongue, and from Dr. Langdon Parsons with carcinoma of the vulva. Criticisms and suggestions were received from Dr. George G. Smith, Dr. Fletcher Colby, and Dr. Roger Graves on sections dealing with urological cancers, and from Dr. Joe V. Meigs on the gynecological problems.

Grateful acknowledgment is due to Dr. Albert S. Murphy, Dr. John Raker, and Dr. Sinclair T. Allen, Jr., who as medical students helped with abstracting and analyzing the clinical records of thousands of cases. Acknowledgment is also made to the record clerks and social workers of the hospitals who assembled material and follow-up data for the studies.

Thanks are due Elizabeth C. Roberts whose careful and excellent illustrations have been checked and reviewed repeatedly to ensure accuracy and clarity of presentation.

Permission was granted by the Surgical Publishing Company to use material in Chapters XXXVI and XIII, previously published in *Surgery, Gynecology, and Obstetrics*, December 1927, Vol. 65; October 1939, Vol. 69; and by the J. B. Lippincott Company for the use of material in Chapter VIII, previously published in the *Annals of Surgery*, February 1941, Vol. 113.

Especially grateful thanks are rendered to Mary Leon Sullivan whose indefatigable, accurate, and cheerful work on the manuscript has brought the book to completion.

We are indebted to Mr. F. F. Randolph of the Oxford University Press for his kind and helpful cooperation in producing the book in its present form.

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