Book Reviews

SUPERVOLTAGE X-RAY THERAPY. A Report for the Years 1937-1942 on The Mozelle Sassoon Supervoltage X-Ray Therapy Department, St. Bartholomew's Hospital. By Ralph Phillips, with the technical assistance of G. S. Innes. With a Foreword by The Rt. Hon. The Lord Horder. London: H. K. Lewis and Company, Ltd., 1944, vii-142 pages. Price 16s.

The Cancer Department of St. Bartholomew's Hospital (London), as a result of their evaluation of 200 kv. x-ray therapy, decided that a thorough investigation should be made of the possible advantages of higher voltages. A gift of Mrs. Meyer Sassoon provided the building and equipment, and a five year fellowship granted by the Sir Halley Stewart Trust insured that a competent radiotherapist would undertake the work and follow it through. Treatments were begun at 700 kv. in 1937 and at 1,000 kv. in 1939, and the project has been carried on with practically no interruptions, in spite of war-time hazards in London.

This book is said by its author to be an "interim report," which is true as far as evaluation of clinical results is concerned. However, more than half of the volume is given over to the results of carefully carried out physical measurements, which form a real contribution to the knowledge of the behavior of x-rays generated at approximately one million volts. These include investigations of methods of measurement of the voltage, determination of the quality and quantity of x-ray output, and tests of protection. Of particular value is a detailed study of the filtering effects of various combinations of metals. Numerous tables and graphs are given showing the relation of percentage depth dose to kilovoltage, filtration, focal-skin distance, and field size, and several isodose charts are shown.

Groups of cases treated with million-volt x-rays include inoperable carcinoma of the breast, carcinoma of the cervix uteri, malignant disease in the upper air and food passages, carcinoma of the rectum, bronchus, esophagus, and other organs. Detailed charts have been drawn up of the distribution of radiation throughout the entire irradiated region for comparison with similar charts for 200 kv. therapy. Average *tumor* doses for the million-volt rays were from 25 to 60 per cent higher than for 200 kv. rays. Because of the small number of patients in any group, it is evident that no conclusions can be drawn as yet. However, the clinical impression is that the use of the higher voltage gave better results in carcinoma of the breast, pelvic organs, and rectum, whereas in the intraoral, bronchus, and esophagus groups the findings are indeterminate. It is pointed out that in these groups there are many variable factors involved and that it is essential to have larger numbers of cases for statistical assessment.

The incidence of x-ray nausea, vomiting, and anorexia has been somewhat less with supervoltage than with 200 kv. therapy; changes in blood picture, time of healing of tissue reactions, and general convalescence about the same.

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LYMPH NODE METASTASES. INCIDENCE AND SURGICAL TREATMENT IN NEOPLASTIC DISEASE. Grantley Walder Taylor, and Ira Theodore Nathanson. With a Foreword by Shields Warren. Illustrations and Tables. London, New York, and Toronto: Oxford University Press. 1942. xxiv + 498 pages. Price $8.00.

This book should receive consideration by every physician who is especially concerned with the treatment of cancer. It is a careful study of cancer as related to lymph node metastasis. It covers the whole field and probably represents a better than average picture of cancer as it is today when treated in a large medical center such as Boston. It would be well if we could have similar books published by men in other cities where cancer has been treated over a number of years. In this way we could get a more enlightened view as to the proper way to handle individual cases.

The book is written in three parts. Part I deals with the anatomy of the lymphatic drainage areas. Part II gives a discussion of the surgical management of lymph node metastases by regions. Part III covers the operations in lymph node areas. Ample and well selected references are given at the end of Part I and at the end of each chapter thereafter. Line drawings illustrate clearly the lymphatic pathways and the operative steps in lymph node dissections. Pertinent literature is reviewed in discussing every region as it is presented, so that the reader gets the benefit of the Boston experience as contrasted with that of others.

In Part 1 lymph node distribution is compiled and analyzed from several anatomical sources. If these line drawings could be made available in rubber stamps or chart forms for general use in hospitals, much more accurate information as to the actual dispersion of the various cancers would become available in a few years. The surgeon and the radiotherapist should be familiar with the most likely routes of spread through lymphatic channels in any given case of cancer. This book is of great assistance in helping them to decide which areas should receive special attention. From the surgeon's standpoint it is difficult to determine in some cases whether the primary growth has spread to the neighboring lymph nodes. He is then in a dilemma as to whether he should do a radical lymph node dissection on the chance that thus he might head off a wider spread of the disease later. In this book he may find considerable data to help guide him in just such a case. The rationale of lymph node operation is well covered. The diagnosis of lymph node involvement is admittedly difficult and subject to individual interpretation. Enlargement or palpability of the nodes is the most dependable guide to their involvement. Methods of physical diagnosis are given to assist in determination of the size and characteristics of the nodes. For example, bimanual palpation, with a gloved finger in the floor of the mouth and the other hand on the outside skin in the submaxillary and submental areas, will furnish more detailed information regarding node enlarge-

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