

## Book Reviews

**SIEBZEHN JAHRE STRAHLENTHERAPIE DER KREBSE.** Zürcher Erfahrungen 1919-1935. [SEVENTEEN YEARS OF RADIATION THERAPY FOR CANCER. Cases from Zurich, 1919-1935.] Hans R. Schinz and Adolph Zuppinger. Leipzig: George Thieme, 1937, x + 340 pages. 95 illustrations and 213 tables. (Published and distributed by authority of the Alien Property Custodian, 1944.) Price \$11.75.

This is a careful statistical analysis of the results of radiotherapy in patients with cancer treated in the radiological department of the University of Zurich between 1919 and 1936.

Emphasis is laid on the improvement in dosage and the results of radiotherapy during the period 1929 to 1936, as compared with 1919 to 1928. The 2,500 cases are classified according to the site of origin in 35 groups. The results of radiotherapy in each group are discussed in relation to age, sex, microscopic character of the growth, local peculiarities, extent of involvement on admission, and whether radiotherapy was the only treatment or was associated with surgery.

It is an excellent study, full of factual information of the results during that period.

MAURICE LENZ

**DER MAGENKREBS.** [GASTRIC CANCER.] George Ernst Konjetzny. Stuttgart: Ferdinand Enke. 1938, x + 289 pages. 155 illustrations and 20 tables. (Published and distributed by authority of the Alien Property Custodian, 1944.) Price \$10.70.

The author records his researches on gastric carcinoma from the pathological viewpoint. For thirty years he has studied resection and postmortem material from the University Clinic in Hamburg and from neighboring cities. He stresses the importance of absolutely fresh material in order to demonstrate the changes he reports.

The book is divided into four sections, which cover the general pathology, etiology, pathologic anatomy, and histology of stomach cancer, and the clinical picture. It is amply illustrated. There are also 20 tables, and a rather large bibliography arranged alphabetically under the name of the authors at the back of the book. The writer states that he did not make this all-inclusive.

Under the first section, on general pathology, he reviews the frequency, age, and sex incidence of gastric cancer. Tables are shown that summarize these features from his material and from a few outside reports. This section comprises only 6 pages of the book.

The second section, on etiology, covers 100 pages. The author reviews the evidence for heredity; outside agents, including types of diet such as vegetarian; raw foods; alcohol; rural versus urban incidence of cancer; and the effect of the social status. Contagion, infection, and Cohnheim's cell-rest theory have nothing to support them as etiologic factors in gastric cancer. Trauma such as a burn may have significance only as a base upon which cancer may later develop. In fact the local process, whether following the short or long end stage of the inflammatory reaction, is most important: "Gastric cancer never develops on a healthy mucous membrane;" also, "Gastric cancer develops on a base previously prepared

(by diseased tissue changes); that is, chronic inflammatory condition of the gastric mucosa or stomach wall." These changes Konjetzny calls precancerous, although some objection has been advanced against this term. The inflammatory changes of highest significance for the initiation of gastric cancer result from mechanical, chemical, thermal, infectious, and hematogenous stimuli, and progress from chronic gastritis, to chronic ulceration, to carcinoma. Gastric carcinoma is always preceded by an outspoken chronic atrophic gastritis or an atrophic hyperplastic gastritis. Under hypertrophic gastritis Konjetzny defines the changes by description and numerous photographs to illustrate his points. The usual postmortem material will not show these changes; the tissue must be fresh and from early cases, for advanced cancer is useless for demonstration of the fine details. Polyps of the stomach are always dangerous, for sooner or later they will develop malignant changes. In atrophic gastritis the alterations are found in the rugae and pits, where dark-staining, irregular epithelial cells may be found. Atrophic gastritis includes not only cases with complete loss of glands but also the progressive type. The pathological process advances through acute, subacute, and chronic changes.

Konjetzny discusses the theories of "age atrophy" and degeneration, as well as inactivation through failure of nerve stimuli. He also considers gastroscopic appearance, which he cannot correlate with the pathological picture, since the former necessarily represents "subjective interpretation".

He concludes that precancerous changes always precede carcinoma. They are present in small cancers where atrophic or hyperplastic gastritis can be demonstrated, for the malignant transformation originates not at one point, but in multiple foci over a broad surface of pathological mucosa.

He has not studied the relatively rare fundus and cardia cases, as his operative material has not been sufficient and he has had no opportunity to investigate early, small neoplasms. His conclusions are based on pyloric antrum carcinoma. He has no definite conclusions to draw on the heterotopic glands seen in these stomachs, and cannot state whether chronic gastritis has anything to do with them. He believes that the possibility of contiguous cells changing to carcinoma by "apposition" cannot be dismissed. He quotes the evidence for preceding gastritis, as shown by the atrophic gastritis of pernicious anemia with subsequent cancer. He shows by citing cases that cancer may arise in the areas of chronic gastritis at a distance from a chronic ulcer or in the stomach wall near an anastomosis.

He discusses the origin of cancer in chronic ulcer, and whether an ulcerating cancer was cancer from the first, or arose on an ulcer; it is impossible to decide by reports from the literature. In order to make the diagnosis a critical examination of all the evidence, including the histologic findings, must be made, for the question

whether any given lesion is cancer or simple ulcer cannot be settled by the history or by clinical means alone. Even at operation a decision cannot be made. The measured size of the ulcer may be of some help, but he has seen ulcers up to the size of a saucer that were not cancerous. Ulcers in the prepyloric region are prone to be cancerous. He re-emphasizes the chronic gastritis-ulceration-cancer sequence, but admits that the ulcer stage may be skipped in some cases. The same factors prevail for carcinomas that arise in the scar of an ulcer. As to whether the gastritis of ulcer can be differentiated from the gastritis in cancer, he feels that gastritis is not specific for either ulcer or cancer.

In the third section Konjetzny reviews the pathologic anatomy and histology of gastric carcinoma; this covers 48 pages. He considers the macroscopic picture and recognizes four main types with subdivisions. Multicentric origin is the rule. Metastasis to the stomach, which takes place by way of the blood stream or the lymphatics, is described and tabulated. The sharp edges and the situation in the submucosa help to make the diagnosis. Primary stomach cancers combined with cancers or benign tumors of other organs are discussed. The site of primary gastric cancer is in the pylorus in over 50 per cent, and nearer 75 per cent from his own observations. The microscopic picture is presented. Carcinoids may be seen in the stomach, but are rare. The question of a relationship between histologic appearances and prognosis or clinical behavior is considered; Konjetzny can find no significance in Broder's gradings in his own cases. The lymphatic drainage of the stomach is well pictured, and the relationship of gastric cancer to neighboring organs by direct extension shown by photographs. The duodenal edge is overstepped many times by gastric carcinomas, also the esophageal edge. Other complications such as perigastric

abscess, peritonitis, and empyema receive attention. Metastases via the lymphatics, blood stream, or across the peritoneum are tabulated, and the predominant lymph node involvements, both regional and distant, well covered. Both common and rare metastases are enumerated, and this whole section, indeed, is a well rounded presentation of the pertinent pathologic picture.

The fourth section covers the clinical aspect; it is about 70 pages in length. In history taking the physician should be concerned with even the most remote symptoms, for if one waits for the textbook picture an early diagnosis will never be made; the possibility does not exist, since there is no such thing as an early carcinoma on a healthy stomach wall. The relation of chronic gastritis to cancer has not been considered exhaustively enough in the past. The physician should look for gastritis and be aware of the possibility that it may progress to cancer. The signs and symptoms are given and operative treatment, exploratory laparotomy, indications for surgery, and after-care reviewed in detail. The resectability of gastric cancer has improved continuously from 1901 (18 per cent) to 1937 (58 per cent). Prognosis, operative mortality, surgical treatment, end results, 3 to 5 and 10 year survivals, recurrence, and treatment for inoperable cases are discussed with tables. This section is presented in an interesting fashion.

Throughout the volume Konjetzny expresses the view that gastric carcinoma is preceded by gastritis and ulceration. Whether this coincides with current pathological opinion or not it is a forcible presentation of the gastritis theory, and the evidence is well documented. The book is worth consideration by all those who deal with gastric conditions, and should be available in clinics where gastric carcinoma is under investigation.

JOHN J. MORTON

#### CORRECTION

From a source that seemed reliable at the time, but that turned out later to have been wholly unauthorized, the Editor received notice that Dr. Philip M. West wished to have his name omitted from the paper on "Demonstration of an Enzyme-Inhibiting Factor in the Serum of Cancer Patients (A Preliminary Study)" by Gregory Duboff and Samuel Hirshfeld (*Cancer Research*, 6:57-60. 1946). The authorship of the paper should read: Samuel Hirshfeld, M.D., Gregory Duboff, M.S., and Philip M. West, Ph.D., M.D.

It now appears that Dr. West fully expected recognition as a coauthor, an acknowledgment to which he had every right as he was largely responsible for perfecting the chemical technic involved.

The Editor regrets that Dr. West should have been deprived of the credit that was his due.