

Reviews

THE NATURE OF CANCER

Principles and Foibles of Cancer. Research in Regard to Etiology and Nature. By William Rienhoff, sen., M.D., F.A.C.S. (Pp. 200.) Baltimore: Waverley Press. 1936.

That Dr. William Rienhoff's book is no ordinary medical treatise may be judged from the fact that its bibliography of 611 items includes ten references to the Bible, eleven to the works of Goethe, and others to Horace, Schiller, Kant, Einstein, and Shakespeare. It is, nevertheless, an attempt to appraise the cancer problem as a whole, and this apparently extraneous matter plays its part largely in giving a literary flavour to the author's criticisms of present-day belief. Although some of his more severe castigations are directed to those who use expressions without definite meaning, and presumably think in an equally nebulous fashion, it has to be said that his own ideas are sometimes clothed in language which it is far from easy to follow. No one, however, can complain that there is anything obscure in his final conclusions, since these declare dogmatically that cancer is a virus disease, and even go so far as to add statements about the distribution of this virus and the mode of its transmission: other "apparent co-operative factors" are "but chanceful preliminaries." It is well, as the author says, that we should sometimes try to see the whole rather than a part, and the serious student of the cancer problem will find parts of this book helpful in trying to do so. But we need not consequently force a general conclusion unwarranted by facts. Not long ago Peyton Rous said it would be a pity if the final solution of this problem did not prove to involve some new biological principle. These words recur to mind with some force before the spectacle of someone who appears content with a very incomplete explanation on very orthodox lines.

THE MECHANISM OF ABSORPTION

Absorption from the Intestine. By F. Verzár, assisted by E. J. McDougall, Ph.D. (Pp. 294; 70 figures. 21s. net.) London: Longmans, Green and Co. 1936.

This monograph is a comprehensive study of the mechanism of absorption and a serious attempt to bring the whole question into harmony. The experimental work is spread over the role of biles in absorption, of hydrotropy, of hydrostatic pressure; the absorption of water and salts; the absorption of fat and the synthesis of neutral fat; absorption of carbohydrate, of bile acids, of sterols (especially cholesterol), xanthophyll, bilirubin, and flavine; absorption of amino-acids, of adrenal cortex, and of morphological particles, and the histology of absorption.

The main problem is taken to be whether it is possible to explain the facts of absorption from the intestine in physio-chemical terms. It was found that diffusion and osmosis are the chief forces, and that infiltration plays a part. There is in the absorption of certain substances a special selective advantage which seems to be completely contrary to physical laws, since from a mixture of hexoses and pentoses glucose and galactose are selectively and quickly absorbed. In the case of sterols there is also a selective absorption of cholesterol in comparison with other sterols, which seems to be true also for xanthophyll and flavine, but the study of these cases shows that there are active processes in the cells of the intestinal mucosa

which influence absorption. It is shown that the phosphorylation processes in the intestinal mucosa are under the influence of the hormone of the adrenal cortex, as are the phosphorylation processes in the muscles. If the adrenal cortex is destroyed the selective absorption of glucose and also of fat absorption is abolished. The incomplete fat absorption in Addison's disease, pellagra, sprue, Gee-Herter's disease, and B₂ avitaminosis can be explained by the disturbance in the function of the adrenal cortex in these conditions.

Fat absorption is dealt with in a manner remarkable for its clarity, and this should do a good deal to clear up the conflicting views put forward hitherto. Fat is absorbed only after being split up in the intestines by lipase; the fatty acids then continue with the paired bile acids to form molecular complexes, water-soluble, diffusible, and specially stable in the slightly acid reaction of the intestine; these complexes are broken down in the mucosal cell and the bile acids are absorbed in the mucosal epithelium, dissolving a greater quantity of fatty acids than *in vitro*. The fatty acid combines with glycerol to resynthesize neutral fat. The synthesis of neutral fat via the formation of a phosphatide is an accelerating factor in the absorption of fat, and may produce the specific fats of the body and render the fatty acids non-toxic. The lecithin content of the blood is increased during fat absorption. The intermediate synthesis of the fatty acids to phospholipoids can be inhibited by mono-iodo-acetic acid and by phloridzin drugs, which inhibit indirectly phosphorylation processes.

This book is a notable contribution to a complex subject, and deserves careful study. It is excellently supplemented by a comprehensive and well-classified bibliography.

A GYNAECOLOGICAL TEXTBOOK

A Textbook of Gynaecology. For Students and Practitioners. By James Young, D.S.O., M.D., F.R.C.S.Ed., F.C.O.G. Fourth edition, revised. (Pp. 417; 221 figures. 16s. net.) London: A. and C. Black. 1936.

The fact that a fourth follows within three years the third edition is proof that Professor James Young's textbook meets a need and is appreciated. The main changes in this edition are in the chapters dealing with sex hormones, and although it is probable that statements now included will have to be withdrawn in later editions their inclusion is presumably necessary if the student is to pass his examinations. The section on ovarian neoplasms includes the more recently described tumours. A healthy sanity and conservatism pervades the book, giving it a special appeal to the general practitioner. The sections dealing with leucorrhoea, pain, and backache incorporate the author's contribution to this important syndrome.

There are but few statements with which the gynaecologist could disagree, but fibroids do sometimes grow after the menopause and Schauta's disciples can remove the malignant uterus by the vaginal route. The illustrations on the whole are poor—particularly those depicting vesico-vaginal fistula and vaginal hysterectomy—but the semi-diagrammatic histological drawings do convey clearly the main features described. The x-ray picture after injection of lipiodol (Fig. 46, p. 111) gives no certain indication that the tubes are normal, particularly as no statement is made of the time which had elapsed after the injection was made. These minor criticisms but serve to indicate the general excellence of the book, and we know of no better textbook for the student or the practitioner—for whom it was written.