

PERRY, C. A., WHITLEY, Oda R. & PETRAN, Elizabeth. **Types of *C. diphtheriae* in Maryland. Cultural Reactions, Cellular Morphology, Virulence, Distribution, Stability and Clinical Significance.** *Amer. J. Hyg.* 1936, v. 23, 580-99; 1 pl. & 2 charts. [12 refs.]

The distribution of *gravis*, *mitis* and "intermediate" types was studied in Maryland (U.S.A.). All the strains of *C. Diphtheriae* isolated fermented glucose and dextrin but not sucrose. Of fifty strains classified as *gravis* 66 per cent fermented glycogen and starch, 16 per cent fermented starch but not glycogen, while 18 per cent fermented neither. None of the strains classified as *mitis* or "intermediate" fermented glycogen or starch except three *mitis* strains which gave feeble reactions in starch. The type of growth in broth was not found constant for any of the three types.

The cellular morphology of the three types was found to be very characteristic particularly if grown on Douglas's tellurite medium. The *gravis* type on this medium is very short, the staining is comparatively uniform and short snowshoe-shaped forms are very characteristic. The *mitis* form appears as a slender fusiform rod usually with few if any barred forms and with many forms showing metachromatic granules. The "intermediate" form is characteristically barred. With practice cultures can be typed on cellular morphology alone.

Only about 3 per cent of the cultures as a whole were avirulent by intradermic tests in guinea-pigs. As judged by the diameter and intensity of the intradermic reactions the virulence of the *gravis* type was greater than that of the *mitis* type, which was in its turn greater than that of the "intermediate" type. During the years 1934-35 all the types were found in the twenty-three counties of Maryland.

Epidemics involving considerable numbers of cases and carriers occurred with both the *mitis* and "intermediate" types but only small epidemics and scattered cases were due to the *gravis* type. No evidence was obtained of a correlation of type with clinical severity.

In no instance was a change of type noted in any case or carrier when subject to repeated examination. For practical purposes the types may be considered as stable.

C. C. OKELL.

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## Reviews.

A SHORT PRACTICE OF SURGERY. Third Edition. By Hamilton Bailey, F.R.C.S.Eng., and R. J. McNeill Love, M.S.Lond., F.R.C.S.Eng. London: H. K. Lewis and Co., Ltd. 1936. Pp. viii + 996. Price 28s. net.

The very fact that the third edition is necessary within a year of the previous one proves the popularity of this work.

It is difficult to criticize such an excellent book; but in view of the

importance of fractures, we should have expected to find more detail given in respect of certain fractures. On the other hand a detailed description of a Thomas' knee splint seems unnecessary in this type of manual.

A few other points of a similar and unimportant nature could be commented on, but what should be included and what omitted is a matter of opinion, and is not altogether an easy problem to solve.

The paper and printing are excellent. The illustrations are profuse, and most helpful in understanding the subject.

As a standard up-to-date work on general surgery, this book is strongly recommended both for students and practitioners alike.

A HANDBOOK OF TROPICAL THERAPEUTICS. By Brevet Colonel R. N. Chopra, C.I.E., K.H.P., M.A., M.D.Cantab., M.R.C.P.Lond. Calcutta: Art Press. 1936. Pp. xxi + 1748. Price Rs. 25.

Colonel Chopra's "Handbook of Tropical Therapeutics" extends over 1,700 pages. Its scope ranges far beyond what the title of the volume would imply; many other aspects of disease, tropical and otherwise, being dealt with.

The first part of the book deals with general consideration in therapeutics, including the action of drugs, conditions modifying their action and their modes of administration. A chapter in this part is devoted to diet and dietetics in the tropics. Here the whole question of food value and deficiencies of essential ingredients of diet likely to occur in the diets of local inhabitants and others is discussed in detail.

In Part II remedies used against helminthic diseases are considered. It begins with a general consideration of the problem, sites of the helminth, choice of anthelmintics and methods of administration. Succeeding chapters deal separately with anthelmintics against cestodes, nematodes, while other miscellaneous anthelmintics are mentioned. Part III deals with remedies used against protozoal diseases. The treatment of amœbiasis is considered very fully. Here the author stresses the point that emetin is not such a satisfactory drug in the treatment of the subacute and chronic type of the disease as in acute amœbic dysentery. In amœbic hepatitis he points out the importance of realizing that previous dysenteric symptoms may have been entirely absent in a patient suffering from this most important amœbic complication. The more recent remedies in the treatment of amœbiasis are very fully discussed.

Treatment of malaria is of special interest at the present time and this subject is very fully considered in a special section. The relative value of quinine, plasmoquin and atebirin are discussed.

Part IV deals with remedies used against bacteria and virus diseases. The chapter on virus diseases discusses the possibility of protection against the various forms of typhus by vaccines and other methods.

In Part V miscellaneous tropical conditions are considered, including

nutritional diseases, tropical neurasthenia, diseases the result of poisonous animals and drug addiction.

In the final part of the book diseases of the skin are considered.

It will be seen from this short summary that the "Handbook of Tropical Therapeutics" has been arranged in a very handy and systematic manner.

The book covers a very wide range of subjects, apart from the therapeutic aspect of tropical diseases which is dealt with in a very full and lucid manner. It should prove of the very greatest value to those practising medicine in the tropics and subtropics. A. G. B.

HINTS TO PROBATIONER NURSES IN MENTAL HOSPITALS. By Richard Eager, O.B.E., M.D. London: H. K. Lewis & Co., Ltd. 1936. Pp. xiii + 222. Price 8s. 6d. net.

The third edition of this book is primarily addressed to Probationer Nurses in Mental Hospitals; but it has a far wider appeal.

After a very excellent set of rules for mental nurses, and a full description of ward duties, it gives a clear and succinct account of the present conceptions of psychology. Though necessarily compressed, this section gives a well-thought-out résumé of this science. It can be cordially recommended to those who desire to acquaint themselves with the elements of psychology, to which it forms an admirable introduction.

A further section on the analysis of dreams follows, which too is a clear description on the mechanism and interpretation of dreams.

The second part of the book deals with the various mental disorders, their classification and causation, with sections on the alcoholic and epileptic psychoses, and encephalitis lethargica, concluding with directions as to admission and discharge of mental patients.

Although concise, the book is well written and easy to read, and gives to mental nurses a very thorough insight into their duties, and what is also important, a description of the normal mind as a foundation on which to build study of the abnormal.

The book is well produced and clearly printed and the text is illustrated with photographs of typical mental cases and some diagrams which help to elucidate difficult points.

An exhaustive bibliography and a good index complete the book.

It is interesting to note that Major Eager was at one time on the staff of the Red Cross (Maghull) Neurological Hospital, and that he is carrying on the tradition of the brilliant band of psychologists who staffed this war-time institution. T. B. N.