Of the seven cases treated by the author only two survived, both having developed the subphrenic abscess as a consequence of appendicitis. Of the 23 patients in the practice of St. Thomas's Hospital, to whom reference has already been made, 13 were males and 10 females. Of the total number 12 died and eleven were discharged recovered.

¹ Trans. Med. Soc. Lond. vol. xxviii.

THE PHYSICAL ANOMALIES OF FEEBLE-MINDED CHILDREN.

DR. C. PAGET LAPAGE¹ has recently published the results of a careful statistical inquiry into the frequency with which certain physical anomalies appear in association with intellectual deficiency. The occurrence of these stigmata of degeneracy has long been recognised, but their existence throws an interesting sidelight on the widespread nature of the developmental disturbance which finds its most striking expression in that part of the economy where departure from the normal is taxed most heavily.

In a study based upon the observation of some hundreds of feeble-minded children in an institution for the reception of such victims, this author states that no fewer than 90 per cent. present some physical anomaly. But single anomalies are common outside the ranks of the feeble-minded; physical anomalies achieve intrinsic importance as indications of a generalised failure only when they occur in combinations of two or more. In the majority of cases there is some degree of microcephaly, this condition presenting itself in 34 per cent. of the series of cases. In association with microcephaly it is common to find some degree of asymmetry of the skull, the right half being generally larger than the left. In addition, it is quite frequent to find a well-marked deficiency of the posterior parts of the skull, although this condition is, of course, no rarity among people of average mental calibre.

In 32 per cent. of the cases there was some unusual appearance of the external ear, variations in the lobule being the most frequent departure from the common form. In 8 per cent. there were found "epicanthal folds," "everted ridges of skin continued round the internal angle of the eye from the upper eyelid."

Of all structures the palate is the most commonly deformed. It may be V-shaped, saddle-shaped, or highly arched. One or other of these defects was apparent in 67 per cent. of the cases, and of these varieties the saddle-shaped and the highly arched were the most common, these two together amounting to 57 per cent. Palatal defects are often to be observed in children of good mental calibre, and are in the author's opinion rather an indication of neuropathic inheritance than of anything more definite. Like the other defects here considered, these acquire a real significance as an indication of mental failure only when they occur in association with some one or more of the other common departures from the normal.

Obliquity of the orbits was observed in 3 per cent. of the cases. Dr. Lapage regards children so affected as instances of mild Mongolism. This conclusion is

supported by the fact that such obliquity is a feature of a bright type of amentia, and it is well recognised that Mongolian idiots are generally of the bright and merry order. Prognathism, on the other hand, which appears with about equal frequency, is allied to a dull and heavy imbecility.

Defects of balance and carriage are common among children of feeble intellect; a rolling gait was noticeable in a considerable number, although physical exercises and drill had done much to improve the majority.

Dr. Lapage concludes that feeble-minded children exhibit physical defects far more often than do children of average development, and that these defects are in such subjects commonly double or triple; that detailed and exact measurements of the head will often bring out unsuspected asymmetry and deficiencies of the skull, and that feeble-minded children are in general smaller and more poorly developed than ordinary school children, the disparity increasing as age advances.

¹ Med. Chron. Aug. 1905.

ACID EXTRACT OF THE DUODENAL MUCOUS MEMBRANE AS A REMEDY IN DIABETES MELLITUS.

DR. JNO. HILL ABRAHAM¹ reports a therapeutic experiment of much interest—namely, the use of an acid extract of the duodenal mucous membrane in the treatment of diabetes mellitus. The procedure is based on the work of Bayliss and Starling, who have shown that the contact of hydrochloric acid with the duodenal epithelium causes in the latter the production of a substance which stimulates the pancreas to secretion. With this increased activity of the pancreas there is an added flow of lymph in the vessels passing from the gland, and thus it may be anticipated—though it is not proved—that there is an increase in the internal secretion of the pancreas. There can be no doubt that the pancreas plays an important part in the assimilation of carbohydrates, and hence an agent which stimulates its activity may reasonably be expected to exert some influence in cases of diabetes. By some such line of reasoning the conclusion is reached that an acid extract of the duodenal mucous membrane has a *prima facie* case in its favour. At the same time it is recognised that in different cases there may well be disturbances in different parts of the carbohydrate-assimilation mechanism, and thus it is not improbable that a remedy which succeeds in some cases may altogether fail in others. In this cautious spirit Dr. Abram records his experience with the acid extract of duodenal mucous membrane. The first case was that of a man of 25 years, with typical symptoms of diabetes mellitus; the urine contained both acetone and di-acetic acid. The acid extract was given from January to May 1905, when the urine had become quite free from sugar, and the polyuria had ceased. The second patient was a boy of seven years, passing a daily average of 2,685 grains of sugar. Under the influence of appropriate diet and of antipyrin and duodenal extract the sugar entirely disappeared in the course of some eight weeks. In a third patient a similar

experience was noted. Obviously these cases are too few in number to form a basis for any generalisation, or indeed for any very confident statement as to the influence of the extract in the instances quoted. There are opportunities for accident and coincidence which must not be forgotten. Further, in two other cases recorded by Dr. Abram the extract produced no appreciable effect, though in each it must be admitted that it enjoyed but a brief trial. With all the necessary qualifications and allowances, however, the positive facts advanced by Dr. Abram are sufficient to justify further trials on the line he has adopted. Experience of the action of drugs in cases of diabetes, more especially in the more rapid form of the disease met with in young patients, is not particularly encouraging, and anything which promises to have some measure of therapeutic value ought to receive a fair and reasonable trial.

¹ The Lancet, Jan. 27, 1906.

THE TREATMENT OF ARTERIO-SCLEROSIS.

In a lecture on this subject Sir James Barr ¹ first reviews the question of etiology with a view to define the measures necessary to prevent the development of arterial degeneration. In this respect he deals with the influence of nitrogenous food, alcohol, syphilis, lead, enteric fever, and other agents, and suggests that the toxin of the *Bacillus coli* may have an important influence in the production of arterio-sclerosis. In dealing with the established disease diet has the first place. Chittenden has clearly demonstrated that all classes of men can not only live, but can enjoy perfect health and strength, both mental and physical, on one-half or one-third of the proteid food described as necessary in the standard dietaries of Voit and others. Un-

doubtedly it is excess of nitrogenous materials in the modern dietary scheme which is responsible for much of the arterio-sclerosis so frequently met with in practice. Slow eating and thoroughness in mastication are other factors which by indirect methods tend to delay the advance of arterio-sclerosis. Outdoor exercise falls into the same category, but the dangers of excess must not be forgotten; danger also attaches to mountain climbing and even ascents to high altitudes by means of mountain railways. The baths of Harrogate, Llandrindod Wells, Buxton, Bath, Aix-les-Bains, Vichy, etc., often do much good in the treatment of these cases. In regard to drugs it is to be noted that the thyroid preparations are extremely useful in arterio-sclerosis. They both dilate the arteries and increase tissue metabolism; the dose must, of course, not be pushed so as to produce the symptoms of thyroidism. Iodine is often even more valuable; it acts by stimulating the thyroid gland. It may be prescribed in the form of tincture, or as a syrup with tannic acid, or the iodides may be ordered. Adrenalin as an agent which raises blood pressure would seem to be contra-indicated in cases of arterio-sclerosis, but when combined with thyroid or iodine it may do good by maintaining arterial tone and stimulating the heart. The benzoates are of great use, especially, where the kidneys are involved, and recently the hippurates have been introduced by Dr. George Oliver, and have proved of value for lowering the blood pressure. The nitrites are valuable for emergencies, but their action is too evanescent for a sustained effect. Indirectly, that is by clearing out the intestinal canal and depleting the intestinal vessels, sodium sulphate and other saline purgatives are also of great importance in the treatment of cases of arterio-sclerosis.

¹ Brit. Med. Jour., January 20, 1906.

PROGRESS IN MEDICINE AND SURGERY.

CANCER.

Parasitic Theory.—The idea that cancer may be due to some parasite has great attractions for many, especially as, if proved, it seems to be the first step towards general curative measures, far exceeding in their scope and certainty anything which we now possess. Von Leyden ¹ sums up the general evidence as follows: Cancer is common only among domesticated animals, and those most frequently attacked are those living near pathological institutes and laboratories. It has a wide distribution, but is not found in antarctic latitudes. It was unknown among African negroes, but it is common enough among imported American negroes. It is on the increase in large towns, and occasionally occurs in small epidemics. The parts most frequently attacked are those accessible from without. Certain chemical differences between cancer cells and ordinary tissue cells, as well as transplantation experiments with the former complete the evidence. Von Leyden does not accept the bacterial theories, but thinks he has observed the parasite in certain cell inclusions, probably protozoa. He does not

hold that the failure to cultivate these on artificial media invalidates their claim to be regarded as the specific cause of cancer, as they are essentially intracellular organisms. On the other hand, Israel ² has pointed out that in no known instance do cells containing a parasite divide and multiply—either the cell or the parasite dies; while both hold that though possibly true, the parasite theory has never been yet proved, no one having succeeded in producing cancer experimentally without transplanting the actual cells, or having demonstrated parasites characteristic of each form of malignant tumour. Hansemann ³ also considers that all the organisms hitherto described fall short of what is necessary to prove their etiological significance. He does not attach any importance to the reported cases of individual infection or epidemic occurrence in a condition so widely spread as cancer. Oldhausen and Benda ⁴ support the parasitic theory as the one which explains best most of the observed facts.

Doyen's Microbe.—This organism, which has been called the *Micrococcus neoformans*, has been credited by Doyen ⁵ with the production of malignant