EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

476. Arterio-sclerosis in Children.

GEOFFREY EVANS (*Quart. Journ. of Med.*, October, 1922, p. 33) confirms Poynton's statement that arterio-sclerosis in children and adults is identical. He publishes four cases, which not only confirm the previous observations of others, but go farther in exhibiting the identity of a particular type of arterial lesion—diffuse hyperplastic sclerosis in children and adults. This identity is confirmed in detail in the type of arterial lesion, its vascular distribution, its incidence in several organs, and association with a raised blood pressure and left ventricular hypertrophy. Arterio-sclerosis is not uncommon in children; it may result from acute infection, from syphilis, and in the course of renal disease; future observations may determine whether this particular type of arterio-sclerosis occurs in syphilis or in acute infections apart from kidney disease. Possibly by the definition of diffuse hyperplastic sclerosis in children, the association of arterio-sclerosis with chronic nephritis may be explained. The present observations throw no new light on this association. The endothelial proliferation in the arterioles now demonstrated for the first time indicates active inflammation. Further, the active inflammatory changes in the kidneys in all four cases, particularly the epithelial proliferation in Bowman's capsule, indicate a primary disease of the renal parenchyma. Such proliferation would not result from interruption of the glomerular blood supply; it indicates that the renal lesion is primary and not secondary to vascular disease. At present the simplest interpretation is that the vascular and renal lesions are both produced by a single pathogenic agent. Another possibility is that renal disease indirectly causes arterial disease through toxaemia resulting from renal inefficiency. The author cites a remarkable case of Hale-White's (*Guy's Hospital Reports*, lv, 17): a boy, aged 6 months, in whom extensive arterio-sclerosis was associated with bilateral hydronephrosis and extreme renal cirrhosis due to phimosis; in this case it was thought that syphilis was the primary cause and that the kidney disease was contributory. In Evans's four cases there was no evidence of syphilis. Chronic nephritis of this type in children is generally considered non-syphilitic. The author made the autopsies in all four cases, and the records (from dates of admission) are very full. The first three cases belong to the type of chronic nephritis in children termed "renal infantilism"; the fourth case differed in some respects, but the renal and cardio-vascular changes justify its inclusion with the others. All exhibited marked cardiac hypertrophy and very high blood pressure. Evans concludes that (1) diffuse hyperplastic sclerosis is identical in children and adults, and (2) its association with chronic nephritis in children is more significant than in adults because many causes of arterio-sclerosis are excluded in children by reason of their age.

477. Treatment of Typhoid Fever.

P.-E. MICHELEAU (*Gaz. hebd. des Sci. méd. de Bordeaux*, October 22nd, 1922, p. 506), as the result of twenty years' experience, is inclined to agree with Huchard, who used to say that in typhoid fever the patient was exposed to two dangers—the disease and the treatment—and that the former was not always the more dangerous. He relates two cases which nearly died of collapse as the result of treatment by pyramidon, but were saved by stopping this treatment and substituting a warm bath, which acted as a cardiac tonic. Another patient suffered from post-typhoid asthenia for several months as the result of too energetic treatment. During the day there was barely half an hour in which he did not have some injection, an enema, or a bath; and it was only during the night that he had a few hours' uninterrupted rest. Micheleau's method of treatment is as follows: Patients are allowed to drink as much water as they can in the form of vegetable soup, weak tea or coffee to which a little alcohol is sometimes added, and lemonade made of citric or tartaric acid. Milk is forbidden, as it tends to coat the tongue and favours intestinal fermentation. The bowel is cleared out morning and evening with an enema of boiled water containing one or two tablespoonfuls of glycerin, and three or four cachets, each containing 0.30 cg. quinine sulphate and benzonaphthol. Cold baths are not given except in special circumstances. From time to time an injection of camphor oil or a few centigrams of adrenaline, caffeine, or spartein are given as required.

478. The Circulatory System in Tuberculosis.

LIVIERATO (*Rif. Med.*, September 18th, 1922, p. 889) says that tuberculosis may affect the circulatory system in four ways, causing—(1) morphological alteration, (2) trophic changes, (3) functional changes, (4) changes due to localized infections of the vascular organs. The morphological changes constitute the so-called "phthisical habit," comprising dwarfism of the heart and hypoplasia of the aorta and vessels. There is, he declares, no special habit predisposing to phthisis, although it is true certain people contract phthisis more readily than others; the habit, if present, is more often a result than a cause of phthisis; a syphilitic "habit" is not regarded as constituting a predisposition to syphilis. The acquired morphological changes of the heart are the result of profound disturbances of nutrition. Nutritive changes include fatty degeneration of the heart and arterio-sclerosis. The functional disturbances include dilatation of the heart (especially the right ventricle), palpitation, especially after the evening meal, tachycardia (which, when persistent, is often due to pressure on the vagus); bradycardia is more common in mild cases. Low blood pressure is common, and is probably due to an endocrinic want of equilibrium. High blood pressure may precede haemoptysis. The localized infections comprise tuberculous pericarditis (often latent), myocarditis, endocarditis, obliterative arteritis, phlebitis. Lastly, tubercle bacilli may be found in the circulating blood.

479. Late Effects of Injuries to the Nervous System.

V. CHRISTIANSEN (*Ugeskrift for Laeger*, October 26th, 1922, p. 1444) deplores the fact that the Danish Workmen's Compensation Act is worded so that every compensation claim must be settled within three years of the accident. During the author's conduct of the Neurological Polyclinic of the Rigshospital in Copenhagen in the past nine years he has seen at least 50 cases in which the symptoms first developed ten to thirty years after an accident. Most of the cases, of which he gives full records, were not complicated by compensation claims, and it was therefore possible to obtain unbiased evidence as to the relation of the accident to the injury. In one case of late traumatic apoplexy, with symptoms of haemorrhage into the oculo-motor nuclei, the combination of drowsiness and coma with paralyses of the muscles of the eyes led to the mistaken diagnosis of lethargic encephalitis. To enforce his suggestion that the three-year limit of the Workmen's Compensation Act is arbitrary, unfair, and too short, the author points out that in some cases improvement occurs after this interval, and the compensation awarded is, accordingly, too high. Although he records many cases he has not found it necessary to draw on that large class represented by tabes, disseminated or combined sclerosis, syringomyelia, dementia paralytica, or amyotrophic lateral sclerosis. He notes that while late haemorrhages into the brain long after an accident are now generally recognized little is known as to the late traumatic genesis of haemorrhages into the spinal cord. He is, however, convinced that such haemorrhages do occur, and he has seen several cases in which the interval between injury to the cord and haemorrhage into it was long.

480. Mental Disorders in Epidemic Encephalitis.

ACCORDING to A. BARBÉ (*Paris méd.*, October 21st, 1922, p. 349), the mental disturbances following epidemic encephalitis are usually manifested at first by symptoms of confusion, obsessions of guilt and unworthiness, sometimes followed by a period of confusion with stupor, necessitating confinement in an asylum, and accompanied by a slight Parkinsonian condition and disturbance of speech. In children encephalitis may be revealed by a change of character, so that the convalescent presents a striking resemblance to a case of congenital mental deficiency. Strange to say, the patients often retain a consciousness of their morbid state even at a late period of the disease. When the acute stage of epidemic encephalitis has subsided, the patient presents symptoms which vary according to the intensity of the lesions. In some cases there may be a hebephreno-catatonic syndrome ending in recovery, while in others there may be a mental disturbance of a melancholic type often ending in suicide. The most frequent sequel of epidemic encephalitis is Parkinsonianism, which is often accompanied by mental disturbances, shown by somnolence, change of character, spasmodic laughing and crying, and loss of memory. In rare cases a pseudo-bulbar syndrome may develop. Pierre Kahn claims to have obtained rapid improvement in post-encephalitic mental disturbances by daily hypodermic injections of 0.40 cg. of sodium cacodylate.

481. Oculo-motor Lesions in Lethargic Encephalitis.

G. COUSIN (*Paris méd.*, September 2nd, 1922, p. 207) remarks that the oculo-motor changes in lethargic encephalitis vary considerably, and in some cases may constitute the whole clinical picture. The following classification is adopted: (1) Clinical forms differing according to the situation of the lesions. The nuclei of the third nerve are principally affected, the symptoms being as follows: ptosis, especially at the onset, insufficiency or paralysis of the rectus internus with nystagmiform jerkings, ophthalmoplegia interna, and paralysis of accommodation either alone or in association with the other symptoms. Paralysis of the sixth nerve is rare and may occur in association with that of the third nerve or alone. Paralysis of the fourth nerve has hardly ever been observed in lethargic encephalitis. (2) Clinical forms varying according to the intensity of the symptoms. Ocular palsies are a constant feature of the disease, whatever the intensity of the symptoms may be, being found alike in the well-marked forms characterized by somnolence and fever, and in the incomplete forms in which they may be the only symptoms, sometimes consisting merely in paralysis of convergence or accommodation. As a rule, progressive improvement occurs and the symptoms completely disappear, except when the Parkinsonian syndrome develops, in which case they may persist in a more or less attenuated state, especially in the form of slight paralysis of convergence. Syphilis and botulism must be excluded in the diagnosis. No special treatment is required.

482. The Auscultation Sign of Richard Karplus.

LUDWIG BRAUN (*Zentralbl. f. Innere Medizin*, July 29th, 1922, p. 489) discusses this phenomenon—a modification of the vocal resonance—in diseases of the lungs and pleurae, which he regards as a definite addition to diagnostic signs. Karplus found that on auscultation over a pleural effusion the vowel *u* is clearly heard as *a*. He recommends that one ear should be applied to the chest wall and the other closed with the finger. Braun discusses in detail the acoustic problems involved; he states that vibrations of the vocal cords give rise to low-pitched harmonic overtones, and that the modification of the vowel sound is heard only over the area of pleural dullness; elsewhere it is normal. With a small pleural effusion *a* is changed into *ao*, and eventually is heard as *oa*. He gives numerous examples of changes in the vowel sound which he has observed, and which are more marked in areas where bronchophony or oegophony is present.

483. Endemic Goitre and Cretinism, and their Prophylaxis.

G. HOTZ (*Klinische Wochenschrift*, October 14th, 1922, p. 2073) describes the recent attempts made in Switzerland to prevent goitre. They are based on the old experience that iodine, administered in small doses for a long period, diminishes the most common forms of goitre. It is now known that only very small doses of iodine are required. It should be given for many years (during the whole period of childhood and in the years of sexual activity). Various conditions of the thyroid gland are found in cretins. The author's observations show that in early childhood the cretinous condition often develops under the influence of a large vascular active goitre, and that by the early resection of most of the goitre the cretinous condition may be arrested; the child then develops in a normal manner and increases in height. In cretinous families usually the mother or father or both parents suffer from goitre. Chemical researches respecting endemic goitre are at present in their early stages. One fact is known with certainty—that the normal thyroid gland substance, iodothyrin, iodothyreoglobulin, and thyroxin are able to prevent or diminish goitre. The prophylactic iodine treatment shows that potassium iodide has the same action. The iodine prophylaxis is carried out in Switzerland in two ways: (1) Potassium iodide is added to the ordinary cooking salt in the proportion of 0.5 gram of potassium iodide to 100 kg. of ordinary cooking salt. This iodized salt is sold at the same price as ordinary common salt, and can be employed for household use. This prophylaxis is carried out in the cantons Appenzell and Wallis. (2) In other districts tablets, each containing 5 mg. of iodine, are given to the children in schools; one is given weekly. The reports of Bayard show a marked diminution of goitre in the districts where the iodized cooking salt is used. The reports of Steinlin and Imbach respecting 7,500 school children treated with tablets show a diminution of the number of cases of goitre. The cost of the tablets for each child for a year was one franc. Caution in the treatment is, of course, necessary, as in certain cases of goitre in adults small doses of iodine lead to symptoms of Graves's disease.

SURGERY.

484. Shoulder Pain in Acute Abdominal Disease.

ZACHARY COPE (*Brit. Journ. of Surgery*, October, 1922, p. 192) shows the great importance of pain referred to the shoulder in acute abdominal disease. By "phrenic" shoulder pain is indicated pain felt in the top of the shoulder in consequence of an irritation of the terminations of the phrenic nerve. This referred pain is felt over the areas of skin supplied by the same spinal segments as the phrenic nerve. Pain is roughly felt in the areas supplied by the descending cutaneous branches of the third and fourth cervical nerves. Any condition causing irritation of the diaphragm may cause this pain, disease of the liver, stomach, duodenum, pancreas, and spleen being most common. The position of the pain varies according to the part of the diaphragm irritated. Irritation of the right side of the diaphragm causes pain in the right shoulder, whilst left shoulder pain results from affection of the left diaphragm. Irritation of the anterior part of the diaphragm causes pain in the clavicular or supraclavicular region, and when the posterior part is irritated pain is felt in the supraspinous fossa. Pain over both shoulders indicates a median irritation. The author finds that gall stones and gall-bladder disease are less commonly the cause of phrenic shoulder pain than are perforated ulcers of the stomach. Cholecystitis does not cause this pain unless there is accompanying local peritonitis. The pain is often a help in making a diagnosis. In perforated duodenal ulcer it is the rule for pain to be felt in the right supraspinous fossa, whilst in appendicitis it is very rare. In acute pancreatitis pain may be experienced in the left supraspinous fossa, associated with the signs of an acute abdominal lesion.

485. Indications for Tonsillectomy.

H. HEIMAN (*Amer. Journ. Dis. Children*, September, 1922, p. 204) inveighs against indiscriminate removal of the tonsils, and urges the substitution of more conservative principles in treatment. From an analysis of 200 cases he formulates the following rational indications for removal of the tonsils and adenoids: Adenoids should be removed in cases presenting obstructive symptoms, mouth breathing, and snoring, without any evidence of these being caused by a high arched palate, and in those with an obstinate nasal discharge without signs of sinusitis. Tonsillectomy is indicated when the tonsils are obviously causing obstruction to breathing or swallowing, are definitely diseased, or present recurrent accumulations of cheesy material with symptoms of toxic absorption; and when tonsillitis is followed by persistent cervical adenitis, whether pyogenic or tuberculous. Each case requires careful consideration on its merits before recommending operation.

486. Papillary Carcinoma of the Kidney.

T. C. STELLWAGEN (*Therapeutic Gazette*, October 15th, 1922, p. 685) points out that these growths are of rare occurrence. They are usually considered to arise within the kidney pelvis; some consider them secondary to vesical papillomata. It is possible that irritation of the renal epithelium in the pelvis plays a definite rôle in their causation; they are found associated with stone in a number of cases. Papillary carcinoma is generally believed to grow from the renal pelvis or epithelial lining of the collecting tubules in the Malpighian pyramids. They may occur as solitary or multiple buds, perhaps filling the whole pelvis and causing obstructive symptoms. They are more common in the male than the female, in the ratio of two to one, and occur between the fifth and sixth decades of life. The diagnosis is seldom made with certainty. Haematuria is the most important symptom, and cystoscopy should be employed to determine the source of the bleeding. Papilloma of the bladder is strong evidence of a growth higher up, especially when associated with renal haemorrhage or the growth involves the ureteral outlet. All cases of symptomless haematuria should be suspected of papilloma. Hypernephromata are usually more rapid in growth, appear earlier, and cachexia is more pronounced; there is usually a dull aching pain in the loin, and sometimes attacks of colicky pain. Treatment depends on early diagnosis, and it becomes essential, if cure is to be effected, to do nephrectomy early before the change to malignancy has occurred. In doubtful cases an exploratory incision should be made, followed if necessary by nephrectomy and ureterectomy. The ureter should be removed down to the bladder wall. Operation should be performed in cases where bleeding persists and the patient is losing health rapidly from loss of blood. When all other methods have failed and the haemoglobin has remained in the neighbourhood of 60 per cent., exploration should be carried out.

487. Pneumoperitoneum in Splenic Tumours.

F. PARTSCH (*Zentralbl. f. Chir.*, June 24th, 1922, p. 905) draws attention to the value of pneumoperitoneum before attempting to remove splenic tumours. As Heinecke has shown, splenectomy in Banti's disease and other chronic disorders of the spleen is often rendered very difficult by adhesions, and most of the fatalities from this operation are to be attributed to this cause, which gives rise to secondary haemorrhage. Partsch states that during the last six months pneumoperitoneum has been carried out on three occasions at the Rostock University surgical clinic before splenectomy. The first case was one of hydatid disease of the spleen, the second one of splenomegaly with portal thrombosis, and the third one of haemolytic jaundice. In the first case pneumoperitoneum showed the presence of echinococcus disease of the liver in addition to a large rounded splenic tumour. The liver and spleen were firmly adherent to the diaphragm and did not allow the air to penetrate between them and the diaphragm. An attempt to separate the spleen in spite of these adhesions led to rupture of the diaphragm and pneumothorax. In the second case, after evacuation of 4 litres of ascitic fluid, extensive adhesions to the anterior abdominal wall, due to a previous operation, were shown. The splenic tumour reached three fingerbreadths below the costal margin, the diaphragm was freely movable, the upper pole of the spleen was free from adhesions and the sides were adherent. In the third case adhesions were not shown on pneumoperitoneum and the operation confirmed the *x*-ray findings. These cases show that pneumoperitoneum, though it cannot exactly take the place of exploratory laparotomy, can nevertheless serve as a guide to the difficulties of splenectomy and is of prognostic value, as in cases of extensive adhesions it may supply a sufficient reason for refusing to operate.

488. "Thermo-penetration" for Abdominal Pain.

M. MENARD and S. NEMOURS-AUGUSTE (*Journ. de Radiol. et d'Électrol.*, September, 1922, p. 397) discuss the effects of "thermo-penetration" on the abdominal organs. They use a current of such a strength that the patient feels a sensation of warmth, very slight and not unpleasant; they advise the maximum strength which the patient can bear, and this varies in different cases. They have treated patients suffering from affections of the alimentary canal, both those who have been operated upon without success and others prior to operation—cases of gastric ulcer, vesical calculus, gastritis, and appendicitis. In all cases they carry out a blood examination and test meal of the fasting stomach. Many cases on a screen examination showed evidence of pyloric spasm. The pyloric pain was often relieved without change in the *x*-ray appearances after treatment. Cases of persistent vomiting and spasmodic pain with haematemesis have been greatly improved under the treatment. In cases of dysmenorrhoea the results have been excellent, and the pains have disappeared. The authors conclude that this form of treatment gives good results in certain gastro-intestinal lesions, while for dysmenorrhoea in particular it is the treatment of choice.

489. Gastric Cancer and Gastric Ulcer.

F. A. SCHALIJ (*Nederl. Tijdschr. v. Geneesk.*, October 14th, 1922, p. 1726) remarks that whereas it was formerly held that a very large percentage of so-called chronic gastric ulcers ended in cancer, the present view is that this result occurs in only a small proportion of cases. If it is true that a high proportion (50, 60, or 90 per cent.) of chronic gastric ulcers is liable to malignant change, a large number of patients with gastric cancer should give a history of chronic gastric ulcer. Schalij has investigated 200 cases of gastric cancer, 97 of which came to operation and 103 did not. Of the former, 79 had a history of gastric symptoms lasting only from four weeks to eleven months before coming under treatment, and of the remaining 18 only 12 had symptoms suggestive of gastric ulcer. Of 103 patients who were not operated on, 100 had symptoms for less than a year before seeking medical advice, so that out of a total of 200 cases of gastric cancer only 15 had in all probability been suffering from gastric ulcer. This did not, however, imply that the old ulcer had always been transformed into cancer, as Schalij had seen patients who had formerly had gastric ulcer, but in whom the cancer developed in a different part of the stomach from that in which the ulcer had been situated.

490. Traumatic Rupture of the Biliary Passages.

H. RUDBERG'S study of 41 cases of traumatic rupture of the biliary passages (*Upsala Läkareförenings Förhandlingar*, August 5th, 1922, p. 223) shows that the structures most often involved are the ductus choledochus, the ductus hepaticus and its chief branches. Occasionally the rent in the biliary passage was complete, but as a rule it was not, and only in two cases was the course of the rent longitudinal; in the other case it was transverse. Children are said to be more liable to this injury than adults, and among the author's cases there were 12 patients under the age of 15. Only 3 of the patients were females, and the preponderance of males is assumed to be due to their living under less sheltered conditions. The clinical picture was extraordinarily uniform in these cases. Immediately after the injury there were signs of shock, with pain in the abdomen, rapid pulse, and pallor, often accompanied by vomiting. The symptoms of shock soon passed off, and many of the patients were able to walk home. During the next few days the abdominal pain diminished, and, apart from slight diffuse abdominal tenderness, there were no signs of peritonitis. The temperature was either normal or only slightly raised. On the third or fourth day the urine contained bile pigments, and jaundice became progressively more severe, and was accompanied by signs of free fluid in the abdominal cavity. In the cases not operated on death occurred in a few weeks or months, during which the patients became emaciated and very weak. In one case as much as 22 litres of bile were found *post mortem* in the peritoneal cavity.

491. Recurrence in Cancer of the Breast.

WIART (*Bull. et Mém. Soc. Chir. de Paris*, July 11th, 1922, p. 979) has followed up all the cases of carcinoma of the breast operated upon by himself over six months and under three years previously. The cases operated upon were those which did not show ulceration, which were movable over the chest wall, and were not accompanied by glandular enlargement in the axilla. The operation consisted in removal of a large area of skin and a still more extensive removal of the subcutaneous fatty tissue, removal of the pectoralis major and minor, and a careful dis ection of the axilla as high as possible under the clavicle. The number of cases investigated was 26. Of these, 9 are dead—8 during the second year and 1 at the end of two years and a half—from general metastases in the bones, lungs, glands, and opposite breast in the different cases. There was no local recurrence in the scar in these patients at the time of their death, but in 3 there was pain and oedema of the arm, probably due to axillary recurrence; this was perhaps due to an incomplete removal of the fatty tissue in the axilla, and should be avoidable. The 17 remaining patients are all alive; 2, however, show signs of recurrence in a nodule in the region of the scar. The 15 other cases are all in good health and give no evidence of recurrence. Where there is any limitation of abduction due to removal of the pectorals this is too slight to cause any inconvenience. The performance of a radical operation considerably diminishes the number of recurrences, and with careful technique these should be very few. On the other hand, in a certain number of cases this will not prevent the rapid appearance of secondary deposits and death.

OBSTETRICS AND GYNAECOLOGY.

492. Treatment of Abortion.

J. A. VAN DONGEN (*Nederl. Tijdschr. v. Geneesk.*, November 4th, 1922, p. 2033) has treated 1,081 cases of abortion in hospital and 112 in private practice since 1914 by curetting. Sixteen deaths occurred among the hospital cases and none among the private cases, so that the total mortality was 1.4 per cent.; 897 cases were afebrile and 296, or 24.8 per cent., were febrile—that is, had an axillary temperature of 100.4° F. or higher before curetting. This figure holds an intermediate position between the statistics of Kermauner-Zelnik, in which 22.4 per cent. of the abortions were febrile, and those of Steffen at Kiel University clinic, in which 400, or 26.1 per cent., of 1,600 abortions were febrile. Of Halban's abortion cases, 28.7 per cent. were febrile, and of Latzko's 33.5 per cent. In 4 of van Dongen's 16 fatal cases the temperature before curetting was normal, or at least below 100.4°. The causes of death in these 4 cases were sublimate poisoning, influenzal pneumonia, haemorrhages, and embolism of the pulmonary artery respectively, and not sepsis, peritonitis, or parauterine complications, so that death cannot be attributed directly to the curetting. It is therefore clear that in afebrile abortion active treatment is indicated, as the mortality among 897 such cases was only 0.4 per cent. Of the 12 fatal cases of febrile abortion, 9 were complicated by infection of the adnexa or parametrium, and only 3 were uncomplicated, so that the mortality of cases of uncomplicated febrile abortion treated by curetting was only 1.09 per cent.—a far better figure than any hitherto recorded, the next best being that of Halban, who had a mortality of 3.13 per cent. in cases of febrile abortion. The three principal objections to conservative treatment of abortion are the danger of haemorrhage, the risk of sepsis, and the longer duration of treatment. In almost 80 per cent. of the

uncomplicated febrile cases the temperature became normal two days after curetting. The average duration of treatment was 11.25 days. In a subsequent paper van Dongen proposes to discuss whether instrumental or digital removal of the residues of abortion is better.

493. Stenosis of the Female Urethra.

E. CHOCHOLKA (*Casopis lékaruv ceskych* and *Zentralbl. f. Gynäk.*, October 28th, 1922, p. 1743) records nine cases of stenosis of the female urethra, none of which was of gonorrhoeal origin. Three were cases of syphilitic stricture, and yielded to antisyphilitic medication without other treatment. In five cases the obstruction was due to polypus near the external orifice or in the lower third of the urethra; these cases exhibited symptoms of stricture and of secondary affection of the bladder and upper urinary tract. Cure was effected by destroying the polypus by means of the Paquelin cautery and stretching the scar. In the remaining case the stenosis was caused by a vertical scar left behind by a vaginal tear dating from labour many years back; after internal urethrotomy the vaginal scar was excised, the urethra freed, and the wound sutured in the vertical direction.

494. Uterine Displacements after Childbirth.

F. W. LYNCH (*Amer. Journ. of Obstet. and Gynecol.*, October, 1922) has found a surprising frequency of uterine displacements during the fourth to the twelfth months after childbirth. His records are those of 1,230 among 2,037 women delivered at term in an obstetric clinic, and 505, or 41.1 per cent., of the 1,230 were found to have retroposition of the womb at some time during the twelve months ensuing on labour. Apart from those traced in the systematic "follow up," no fewer than 32 per cent. of the patients with retroposition returned to the clinic on account of pelvic symptoms, and only 10.5 per cent. of the control series with normally placed uterus gave similar complaints, which consisted in bearing-down sensations, a feeling of pressure in the pelvis, or sacral backache. These results are in conflict with the school which has concluded—largely from the work of Schroeder, who found that one-fourth of women having no pelvic symptoms showed retroposition of the uterus—that uterine displacements are of little importance. From the fact that fewer than 20 per cent. of private patients showed retroposition, it may be argued that insufficient rest after labour is a factor of etiological importance. Of the 505 displacements, 18 per cent. developed between the fifth and eighth months, and 6 per cent. between the ninth and twelfth. Treatment was attempted in all cases, subinvolution being treated by douches and tampons. Not less than five weeks after delivery straightening (without anaesthesia as a rule) and correction by pessary were tried in 281 cases, with 68 per cent. of cures. Cases suitable for operation, pessary treatment having been unsuccessful, or impossible on account of a relaxed condition of the vagina, numbered 47. With regard to retrodisplacement and fecundity, it was found that the percentage of subsequent pregnancies in married subjects was twice as great in those with treated as in those with untreated malpositions, and three times as great as in those without displacements. Emphasis is laid by the author on the importance of examining the uterus at stated periods after childbirth and of early correction of retropositions.

495. Transmission of Placental Tuberculosis.

GEIPEL (*Zentralbl. f. Gynäk.*, September 9th, 1922, p. 1453) was led by an observation of Schmorl—who found a caseous mass in the chorion, breaking through and allowing entrance of detritus and tubercle bacilli into the liquor amnii—to examine liquor amnii from pregnant patients suffering from advanced tuberculosis of the lungs and other organs; the centrifugalized fluid was stained and also injected into guinea-pigs. No evidence of the presence of tubercle bacilli was obtained in two cases, in one of which the placenta contained a tubercle with tubercle bacilli; in a third case, in which the chorion contained two tubercles but the amnion was intact, the liquor amnii contained a clump of tubercle bacilli and infected the guinea-pigs into which it was injected. No evidence of tuberculous infection was found in the foetus of the last-named case, but, theoretically at any rate, infection of the gastro-intestinal tract or skin was possible. Geipel, however, is sceptical concerning the occurrence of effective infection; he points out that, although tubercle bacilli have been found in foetal lymph glands and liver, evidence of local reaction has been absent. Similarly the detection of tubercle bacilli in the intervillous placental space in maternal tuberculosis is not evidence of placental tuberculosis unless tubercle formation is histologically proved. A case is recorded by the author, in which, in connexion with a five months' abortion, the placenta presented a condition of pseudo-tuberculosis, with numerous nodules containing round, epithelioid, and giant cells; no tubercle bacilli or spirochaetes were detected.

PATHOLOGY.

496. Test for Botulinus Poisoning.

V. BURKE and C. W. MAY (*Journ. Amer. Med. Assoc.*, November 11th, 1922, p. 1669) have devised a rapid test for the etiological factor in bacterial food poisoning, for which the claim is made that it can be readily applied by practitioners lacking access to a diagnostic laboratory. The test consists of a rapid, confirmed test for the toxin of *Clostridium botulinum* (*B. botulinus*) combined with a slower presumptive test for organisms of the paratyphoid-enteritidis group. There is also described a rapid presumptive test for the presence of botulinus toxin which may be used when botulinus antitoxin is not available. The application of this test in a recent outbreak of botulism, with the resulting diagnosis and case history, is described. In testing to determine the presence and nature of the poisonous substance in a jar of tinned asparagus, 2 c.cm. of the unfiltered asparagus liquor was placed in each of five serum tubes. To the asparagus juice in the second tube was added 1 c.cm. of Type A botulinus antitoxin. To the third tube was added 1 c.cm. of Type B botulinus antitoxin. The fourth tube was placed in boiling water for ten minutes. To the fifth tube was added 0.5 c.cm. of a 10 per cent. solution of hydrochloric acid, which was allowed to stand for ten minutes. The contents of all five tubes were then neutralized to litmus with a saturated solution of sodium bicarbonate. The contents of each tube were then injected into the marginal ear vein of a medium-sized rabbit. The results indicated that the asparagus contained a botulinus Type A toxin.

497. Glycaemia in Diphtheria.

P. LEREBOULLET, P.-L. MARIE, and L. LEPRAT (*Paris méd.*, November 4th, 1922, p. 417) for some months have been carrying out investigations on the presence of glycaemia in diphtheria for the following reasons: (1) because in recent years stress has been laid on the hypoglycaemia which is the rule in suprarenal insufficiency, and (2) because severe forms of diphtheria are often associated with acute suprarenal insufficiency. They found that in three cases of mild diphtheria without much constitutional disturbance or toxic symptoms the blood sugar remained normal, varying between 0.91 and 1.13 gram; while in six cases of severe diphtheria, characterized by extensive membrane, oral fetor, much adenitis, and albuminuria, the glycaemia, with one exception, in which it was normal, was decidedly diminished, the amounts being 0.597, 0.71, 0.77, 0.79, and 0.74 gram respectively. In some of the cases the hypoglycaemia was associated with other signs of suprarenal insufficiency. The authors conclude that if these findings are confirmed by further observations hypoglycaemia in severe diphtheria may be regarded as an indication of suprarenal involvement which is so frequent in diphtheritic intoxication.

498. The Effect of Carbohydrates in the Production of Immune Bodies.

IN view of the beneficial effect which has so frequently been observed to follow the administration of glucose in infective diseases, M. OHTAKI, K. SUKEGAWA, and S. SAWAGUCHI (*Japan Med. World*, October 15th, 1922, p. 288) endeavoured to determine the biological effect on the organism of the administration of carbohydrates. For this purpose they made up 1 per cent. solutions of certain sugars—glucose, lactose, saccharose, maltose, dextrin, and glycogen—and injected them intravenously once a week into rabbits. Two animals were used for each sugar. Eight days after the fourth injection they were bled, the serum collected, inactivated by heating at 60° C. for half an hour, and preserved with 0.5 per cent. phenol. Agglutination tests were put up, starting at a dilution of 1 in 20, against heated saline suspensions of typhoid, paratyphoid, colon, dysentery, and cholera bacilli. With the exception of the typhoid strain, all the bacilli gave negative results. The *B. typhosus*, however, was agglutinated up to a titre of 1 in 1280 by the glucose and glycogen serums, and to a lower titre by the others. The ability of this typhoid strain to fix complement in the presence of the various serums was then tested, and was found to be positive in the case of the glucose and glycogen serums. A certain bacteriolytic action in respect to *B. typhosus* was demonstrated with these two serums, though the results were not very convincing. The effect on the cellular constitution of the blood resulting from the injection of 2 per cent. glucose solution was found to be a leucocytosis, while rabbits subjected to the injection of typhoid bacilli developed a leucopenia. The authors find it difficult to draw any definite conclusions from the foregoing experiments. Whether the immune bodies produced are to be considered as specific for *B. typhosus*, or whether they are of a different nature, has not yet been determined.