

# EPITOME OF CURRENT MEDICAL LITERATURE.

## MEDICINE.

### 166. Vaccine Treatment of Typhoid Fever.

LUNA (*La Pediatria*, August 1st, 1920) reports on 175 cases of typhoid fever in children treated by Di Cristina and Caronia's vaccines. The cases were classified in four groups—namely, 4 very severe, 52 severe, 74 moderate, and 25 mild. The intravenous, intramuscular, and subcutaneous routes were employed in various cases. With the subcutaneous route an average of five injections or 7.50 c.cm. of the vaccine was given, with the intramuscular route four injections or 5.15 c.cm., and with the intravenous route three injections or 1.10 c.cm. The reaction was, as a rule, much more marked after intravenous than after intramuscular injection, but recovery was more rapid. The action of the vaccine was slowest in subcutaneous injection. KHARMA-MARINUCCI (*Ibid.*, July 15th and August 1st, 1920) reports 80 cases of typhoid and paratyphoid fever in children treated by vaccines prepared according to Di Cristina and Caronia's method. Only three deaths occurred, due to pneumonia, intestinal haemorrhage, and toxæmia respectively. Apart from these three cases the vaccine had a beneficial action on all the patients. The number of injections which were given intramuscularly varied with each case. Sometimes a single injection was sufficient to produce complete defervescence; in others several injections were required. As a rule three to five injections given on alternate days were sufficient. Nineteen cases developed complications—namely, intestinal haemorrhage (3 cases), pyelocystitis (4 cases), bronchopneumonia (3 cases), pleuropneumonia (1 case), and various suppurative processes (8 cases). The vaccine did not appear to have any preventive or curative action on intestinal haemorrhage.

### 167. Influence of Trauma on the Distribution of Psoriasis.

SMALL (*Edin. Med. Journ.*, January, 1921) says that the influence of trauma on the distribution of psoriasis was seen in two distinct groups of cases in the army: (1) Those in which the disease first made its appearance in the neighbourhood of wounds. (A plate illustrating psoriasis around a gunshot wound on the back is shown; the man had had previous attacks of the disease.) (2) Those in which the psoriasis became superimposed on some other cutaneous malady—for example, impetigo, scabies, seborrhoea, etc. In this group the psoriasis adopts the distribution of its predecessor. (A plate shows psoriasis following scabies and impetigo; this man had no previous history of psoriasis.) Small combats the theory that psoriasis and seborrhoea are the same pathological entity by reference to these groups, affirming that psoriasis in a seborrhoeic subject will have its distribution influenced by the pre-existing seborrhoea. He concludes by suggesting that psoriasis is more a general than a local disease, and that its almost constant occurrence on the knees and elbows may be attributed to the greater degree of friction to which these parts are liable.

### 168. Mantoux's Intradermo Reaction in Infantile Tuberculosis.

SALVETTI (*La Pediatria*, October 15th, 1920), who had previously performed von Pirquet's reaction with human and bovine tuberculin on 600 children, now records the results obtained with Mantoux's intradermo reaction in 500 children, in the great majority of whom human tuberculin only was used. The dose of tuberculin injected was always  $\frac{1}{10}$  mg. The results almost entirely agreed with those of the cuti-reaction. A positive reaction was obtained in 131 cases, or 26.20 per cent., and a negative reaction in 369, or 73.80 per cent. Salvetti regards a positive reaction in an infant as possessing a high diagnostic and prognostic value, as it indicates a recent infection which may progress, clear up, or become inactive. A negative intradermo reaction which is normal in the infant diminishes in frequency with advance in age, and it is only in the older child that it possesses considerable diagnostic and prognostic value, for in such cases, especially if repeated, it excludes with relative certainty the possibility of tuberculosis. Salvetti concludes that Mantoux's reaction is the most suitable method for revealing tuberculous infection in infancy.

### 169. Irradiation of the Hypophysis in Bronchial Asthma.

ASCOLI and FAGIUOLI (*Rif. Med.*, July 20th, 1920) have obtained good results in the treatment of asthma by irradiation. They irradiate three different fields—one frontal and two temporal—at a focal distance of 45 cm., using an aluminium filter of 2 mm., S.E. 18–20 cm., ma. 3 $\frac{1}{2}$ . The treatment is conducted for twenty-five to thirty minutes at a time, at intervals of a week, about four sittings being necessary. In the five cases of which they give brief notes decided relief and almost complete cessation of the attacks of asthma was noticed. They have also had success from similar treatment in a case of dystrophia adiposigenitalis and one of sclerodermia. On the other hand, no marked good was derived from irradiation in a case of infantilism, one of angioneurotic oedema, and three cases of diabetes mellitus. It is understood that if there is no pituitary gland left, irradiation treatment, given with the object of stimulating the endocrine glands, is not likely to be successful.

### 170. Serum Treatment of Meningococcal Septicæmia.

KJÆER (*Ugeskrift for Læger*, September 16th, 1920) urges the necessity for early treatment of meningococcal septicæmia by means of large doses of serum given intravenously. The clinical picture being characteristic, it is not always necessary to wait for a bacteriological confirmation of the diagnosis. He records two cases to show that even in desperate and practically hopeless cases early serotherapy may save the patient. Though this treatment was instituted in both cases on the strength of the clinical diagnosis only, a bacteriological examination was subsequently made and meningococci belonging to Type A were found in both the throat and the petechiae. In one case seven injections were given—five into a vein, two into a muscle—on seven successive days. The amounts were 30, 20, 20, 30, 30, 20, and 30 c.cm. respectively. In the second case only two intravenous injections of 30 c.cm. each were given. The author notes that Type A appears to be the most prevalent form of meningococcus in Denmark, constituting about 90 per cent. of all cases.

### 171. Septic Infections of the Urinary Passages in Children.

JEMMA (*Rif. Med.*, November 6th, 1920), in a clinical lecture on a case of coli bacilluria in a child of 2 years, points out that in a child suffering from irregular intermittent fever, pallor and intestinal disturbances, when other causes have been excluded, one ought to think of coli bacilluria and examine the urine. In the child in question typhoid, paratyphoid, Malta fever, relapsing adenoiditis, syphilis and tubercle were all excluded on clinical grounds, confirmed by negative reactions to the various serum tests, and on examining the urine pus and *B. coli* were found. Too many of these cases are attributed to gastric disturbances, examination of the urine being omitted. The urinary symptoms at this age may only be slight, especially if the kidney is more affected than the bladder. Whether the bacillus enters from without, or from within the blood or lymphatics, is uncertain. If there are no complications the prognosis is good, but sometimes bronchopneumonia or diarrhoea may complicate matters. Treatment by urotropin, helmitol, or salol, and the drinking of plenty of water, give satisfactory results. The urine is usually acid. The author does not mention the treatment by sodium bicarbonate and potassium nitrate. Washing out the bladder is seldom necessary.

### 172. Osteochondritis Deformans Juvenilis.

ACCORDING to MOUCHET (*Bull. et Mém. Soc. de Chir. de Paris*, December 14th, 1920), this condition, which is called by the Americans Legg's disease and by the Germans Perthes's disease, was previously described in the newborn by the French writers Ménard and Soudat. It is a relatively rare affection, as Sorrel has observed only 6 cases among 1,500 children under his care at the Maritime Hospital at Berck for chronic osteo-articular lesions. Two-thirds of the cases are in boys. The age ranges from 3 to 12 or 13 years, the most frequent age being 5 to 9 years. Unilateral involvement is the rule, the right side being affected as much as the left. As a general rule the limp is only slight, and the movements of the legs are not much restricted. Extension is normal, flexion and external or internal rotation are little if at all affected, but abduction

is constantly limited. X-ray examination, which is all-important in this disease, shows special changes in the head of the femur, the epiphyseal cartilage, and the neck of the femur. The epiphyseal nucleus in the head of the femur is often broken up into two or three nuclei: the epiphyseal cartilage is very irregular, and the neck of the femur shows clear areas below the epiphyseal cartilage. Treatment consists in immobilizing the limb by plaster or continuous extension.

#### 173. Myasthenia Gravis with Osseous Changes.

LEREBOLLET, IZARD, and MOUZON (*Bull. et Mém. Soc. Méd. des Hôp. de Paris*, December 30th, 1920) record the case of a woman, aged 33, who had suffered from myasthenia gravis for thirteen years, the diagnosis having been confirmed by Goldflam, who was the first to describe the disease. The remarkable features in her case were, first, the slow course of the disease, which allowed her to lead an active life for thirteen years; secondly, the occurrence of changes in the bones of the face; and, lastly, the association of obesity and amenorrhoea. The bony changes consisted of a deformity of the superior maxilla, giving rise to a deviation of the central and lateral incisors, which were projected almost directly forwards and upwards, with wide gaps between each. X-ray examination showed that the lesions were due to well marked decalcification.

## SURGERY.

#### 174. Thoracoplasty in the Treatment of Pulmonary Tuberculosis.

BULL (*Il Morgagni*, September 25th, 1920, and *Medical Science*, March, 1920) speaks favourably of excision of the ribs in phthisis. He has operated on 37 cases, divided into two groups of 24 and 13. In the first group there were three deaths and in the second only one. The improvement in the mortality of the second series is attributed by the author to the division of the operation into two stages. In the first stage the fifth to eleventh ribs are removed under local anaesthesia and the further stages of the operation are performed under general anaesthesia. The best results are obtained when 120 to 130 cm. of rib are removed. As a result of his experience Bull recommends removal of the first rib as a routine procedure. After the operation the muscles are sutured with catgut and the skin flaps with silk; a glass drainage tube is kept in for two or three days. Where the cavity remains rigid, fat taken from the abdomen may be used to induce collapse. In 5 out of 9 cases fat so removed constituted a fibrolipoma around which the local tissues cicatrized regularly. Of the 33 patients who survived the operation 7 have since died of tuberculosis; of these one lived four years and another died of influenzal pneumonia. Of the 25 now living, 11 are cured, that is, have no fever, no bacilli, and no cough, and are able to carry on their regular occupation. The others still present symptoms of phthisis, but show some signs of improvement; it is less than a year since they were operated upon. Unfortunately one cannot guarantee that the lung on the unoperated side will remain free from tubercle.

#### 175. Physiology of Wound Repair.

R. INGEBRIGTSEN (*Norsk Mag. for Laegevidenskaben*, December, 1920) has carried out investigations into the processes of repair of superficial wounds with a view to controlling the researches of Carrel and Lecomte du Nouy. The author's findings, which concern seven series of investigations, are confirmatory and supplementary. Employing the imposing mathematical formulae worked out by du Nouy, he found out that the rate of healing of a wound after it had become sterile conformed to the laws enunciated by du Nouy as far as ordinary surgical treatment was concerned. But when he adopted treatment with compresses soaked in 0.3 per cent. silver nitrate and alternated this treatment with insolation, he found the rate of healing to be far more rapid than with Dakin's solution, which only sterilizes but does not stimulate the tissues. He is not prepared to state which is the more important, silver nitrate or sunlight, but he is so impressed by the value of the combination of the two that this treatment has been adopted at his hospital in every case of superficial injury.

#### 176. Fibrous Osteitis and Inherited Syphilis.

MOUCHET (*Bull. et Mém. Soc. de Chir. de Paris*, December 21st, 1920) has recently observed two cases of fibrous osteitis which were undoubtedly due to inherited syphilis.

One of the patients was a girl of 13 who had had pain in her right foot due to involvement of the astragalus since the age of 4 years. The pain had improved as the result of treatment, but the anatomical condition of the astragalus had not undergone any change. The other case was in a girl, aged 17, who had suffered for some months from pain in the right trochanter. There was slight atrophy of the right lower limb, but the gait and movements of the hip and knee were normal. There was slight tenderness on pressure over the trochanter without any increase in size. X-rays showed the rarefaction and polycystic appearance characteristic of fibrous osteitis. Subsequently the girl slipped on the floor and fractured her femur at the site of the fibrous osteitis.

#### 177. Frequency of Extragenital Chancres.

DELINOTTE (*Rev. de lar., d'otol., et de rhinol.*, November 15th, 1920) devotes his Bordeaux thesis to a study of 192 cases of extragenital chancres which have occurred in various hospitals in Bordeaux during the last thirty years, as compared with 703 cases of genital chancres during the same period. Extragenital chancres are most frequent in men, in whom two-thirds of the cases occur, the favourite age being 20 years. Chancres of the lips are the most frequent, especially of the lower lip. Glass-blowing chancre, according to Delinotte, is less frequent than in former years. Next come chancre of the tonsil, of which a polypoid form has recently been described (vide EPITOME, April 24th, 1920, para. 444), and then, in decreasing order of frequency, chancre of the chin, which is usually due to the barber's razor, and chancre of the female breast, anus, and tongue, where the lesion is usually on the dorsum. Chancres of the limbs, ear, and nose are much rarer. Other very unusual situations for chancres, of which Delinotte records illustrative cases, are the gums, the male breast, and the ocular conjunctiva.

#### 178. Reflex Calculous Anuria.

SALA (*Il Policlinico*, Sez. Prat., November 1st, 1920) reports a fatal case of calculous anuria in a woman, aged 43, who was suddenly seized with a severe pain in the right flank followed by vomiting. A few days later a tender swelling developed in the right lumbo-iliac region. The amount of urine gradually diminished until complete anuria ensued. Gynaecological examination showed atresia of the vagina with infantilism of the external genitals. This condition suggested the possibility of the kidney being a single one as well as being ectopic. Cystoscopy, however, which might have confirmed this, was refused. Exploratory operation showed an ectopic right kidney in the lumbo-iliac position without any torsion of the pedicle or calculus in the renal pelvis. Death took place three days after the operation, and the autopsy showed absence of the uterus, ovaries, and left kidney. There was a small calculus in the right ureter, which did not, however, completely block the lumen, so that the renal secretion must have been diminished and then abolished by a unilateral reflex.

#### 179. Diathermy an Aid in Empyema.

HIRSH (*Med. Record*, December 18th, 1920) quotes a case of long-continued empyema, with osteomyelitis in both fragments of each of the resected ribs, and a great variety of complications requiring a number of major operations, without any good result until diathermy was employed. So great was the improvement that a series of chronic cases with various complications were similarly treated with uniformly satisfactory results, especially in cases of haemolytic streptococcus origin, with or without osteomyelitis. Treatment was given daily to the affected region, one electrode being placed directly over the inflamed area, including the incision scars and discharging aperture, and the other over the antero-lateral surface of the chest, both being moved downwards in the course of treatment to take in the areas treated by Carrel's tubes. In the case quoted suppuration gradually ceased and all evidence of rib involvement disappeared, with complete correction of the deformity and improvement in the patient's general condition.

#### 180. Chronic Pyogenic Osteomyelitis.

DE GAETANO (*Rif. Med.*, August 21st, 1920) reports a case of chronic osteomyelitis (forty-three years' duration) of the thigh. The patient, who was 60 years old, was struck on the thigh at the age of 11, but there was no bone injury. The present illness began at 16 years, when the left thigh began to swell in a uniform manner, and after a time pus was discharged. This condition had persisted, but did not interfere much with his work. There was no

history of syphilis or tubercle, and the Wassermann and von Pirquet tests were negative; tubercle bacilli were found. Examination of the pus gave an almost pure culture of *Staphylococcus aureus*. Several sequestra were removed. The most striking feature of the case was the chronicity; it began as a chronic affection without any general illness or any local injury, for the blow at 11 years was a temporary affection, and recovery appeared to follow in the course of a few days.

#### 181. Treatment of Nasal Sinusitis.

ALIKHAN (*Rev. de lar., d'otol., et de rhinol.*, December 15th, 1920) uses the following method of treating retention of purulent secretion in the nasal fossae. The patient is told to empty part of the air in his lungs; his nostrils are then compressed, and he is made to inspire by the nostrils without opening his mouth. Next the doctor counts up to six, and the patient is then allowed to open his mouth, the object of the buccal respiration being to prevent the pus returning into the sinuses when the air is passing into the nostrils. This method has yielded excellent results in acute sinusitis at the stage when lavage is not indicated, and is specially useful in the differential diagnosis of sinusitis from purulent rhinitis.

#### 182. Thrombosis of the Central Artery of the Retina following Ophthalmic Zoster.

AURAND (*Lyon méd.*, December 10th, 1920) records the case of a woman, aged 75, who forty days after the appearance of ophthalmic zoster on the left side, suddenly lost the sight of her left eye without any preceding strain or injury. Ophthalmoscopic examination showed left optic atrophy and necrosis of the central artery without any retinal haemorrhages. The absence of any cardiac lesion enabled the diagnosis of retinal embolism to be excluded in favour of thrombosis due to endarteritis obliterans, the localization of which was due to the ophthalmic zoster.

## OBSTETRICS AND GYNAECOLOGY.

#### 183. Prognosis of Eclampsia.

MARSAUDON (*Journ. de méd. de Bordeaux*, October 25th, 1920), in his Bordeaux thesis, discusses the prognosis of eclampsia from the statistics of the Bordeaux Obstetrical Clinic from 1899 to 1919. The treatment, which consisted in bleeding under oscillometric control, purgation, and administration of chloral per rectum and by mouth, gave as good results as treatment by narcotics or by rapid and systematic emptying of the uterus, as is shown by the following figures: Among 54 cases occurring during pregnancy the maternal mortality was 18.5 per cent. and the foetal mortality 38.5 per cent.; among 16 cases occurring during labour the maternal mortality was 6.2 per cent. and the foetal mortality 18.7 per cent.; among 12 cases occurring in the puerperium the maternal mortality was 8 per cent. and the foetal mortality 25 per cent. Thus, among 82 cases the maternal mortality was 14.6 per cent. and the foetal mortality 32.9 per cent.

#### 184. Intestinal Obstruction and Tubal Pregnancy.

HANAK (*Wien. klin. Woch.*, November 22nd, 1920) records a case of intestinal obstruction in a woman aged 31 associated with a pregnancy in the right Fallopian tube. The patient had been operated on for tubal pregnancy on the same side three and half years previously, and the intestinal obstruction was found to be due to adhesions between the small intestine and the adnexa on both sides. Complete recovery followed extirpation of the right tube and ovary. The occurrence of ectopic pregnancy on two occasions Hanak attributes to the presence of salpingo-öphoritis, the origin of which could not be determined, as gonorrhoea was denied. Hanak has been unable to discover any previous examples of the association of intestinal obstruction and tubal pregnancy, and has found only five other cases of ectopic pregnancy occurring twice on the same side.

#### 185. Ectopic Pregnancy and Rupture into the Caecum.

CHASE (*Med. Record*, December 4th, 1920) describes the case of a patient, aged 25, in whom three months' amenorrhoea was followed during six weeks by painless haemorrhage, and subsequently by vomiting and hypogastric pain, which continued for seventeen days. At this juncture the pain diminished, but a large amount of dark clotted and bright red blood was passed by the rectum. At the time of her admission to hospital, in a state of grave anaemia and collapse, examination was negative

except for a mass the size of a fist in the right side of the pelvis. At operation the caecum was found to be adherent to the posterior surface of a ruptured right tubal gestation; the caecum and the sac communicated by an aperture larger than half a crown, and the foetus, together with much blood clot, lay in the caecum. The rent in the caecum was repaired, the ectopic mass was removed, and a drain was placed in the posterior fornix. The patient recovered.

#### 186. Rupture of Uterus at Caesarean Scar.

KICKHAM (*Boston Med. and Surg. Journ.*, November 18th, 1920) records the case of a 3-para, aged 27, who had undergone two Caesarean sections, and in the thirtieth week of her third pregnancy suffered suddenly from cramp in the lower abdomen and from vomiting, not associated with severe pain. Half an hour afterwards the general condition was good, the pulse was 75, and the temperature normal. The foetus could be palpated with more than usual ease, but the palpability of the uterus was doubtful. Shortly after a discharge of bright red blood had occurred per vaginam laparotomy was undertaken. The peritoneal cavity contained fresh blood, and the dead foetus (still enclosed within intact membranes), as well as the placenta, lay free in the abdomen. Supravaginal hysterectomy was successfully performed. The T-shaped rupture was situated in the anterior wall of the upper part of the uterus, and corresponded generally in position to one of the old scars.

#### 187. Gland Tubules in the Fallopian Tubes.

ARGAUD (*C.R. Soc. Biologie*, October 16th, 1920), who has made observations on several species of mammals, shows that at certain periods tubular glands exist in the tubes near the isthmus. During gestation, for example, the mucous cul-de-sac penetrate deeply into the wall, lengthening and hypertrophying like those in the uterine endometrium. This can be seen well in the gravid bitch. Towards the end of parturition the mucosa of the tube is so occupied with tubules that there is scarcely room for the collagenous connective tissue. After delivery the lining cells of such tubules undergo degeneration. In the human female these glands are much less numerous, but, as in other mammals, they are quite apparent in pregnancy. The observation is of interest because it explains the occurrence of gland tubules found in the Fallopian tubes in certain inflammatory conditions and in some neoplasms.

#### 188. Late Results of Conservative Operations for Myoma Uteri.

SCHMID (*Zentralbl. f. Gynäk.*, October 30th, 1920) records the sequelae of 54 cases of conservative operation (enucleation or myomectomy) for myoma uteri. Recurrence was found in 9 patients, 6 of whom, however, did not present symptoms. Among 10 patients there had been fifteen subsequent pregnancies, of which ten continued to term. Among 43 cases four patients reported increased menstrual loss (these four were approaching the climacteric), eleven had menstruation of unaltered character, and twenty-eight (or 65 per cent.) exhibited diminished duration and extent of menstruation.

#### 189. Five-Year-Old Foetus Loose in the Abdominal Cavity.

SCHAANNING (*Norsk Mag. for Laegevidenskaben*, November, 1920) records the case of a married woman who consulted a doctor for varicose eczema of the legs. Quite incidentally she gave the following history. She had undergone a normal confinement at the age of 27. Since then she had never aborted. In December, 1908, at the age of 44, she ceased to menstruate and soon exhibited definite signs of pregnancy. This was marked by several attacks of abdominal pain. After pregnancy had lasted about nine months labour pains set in and were followed by a slight haemorrhage, which lasted about a couple of days. After about twelve months' amenorrhoea, normal menstruation returned, recurring regularly at four-week intervals. On examination five years later, the author found a large, nodular, freely movable tumour in the abdomen. Another tumour, almost as large as an infant's head, could be felt in the right lower abdomen. Laparotomy was performed, and a foetus, weighing 1,250 grams, was found perfectly free in the peritoneal cavity. Filling the pouch of Douglas was a white, smooth tumour, adherent to the lower part of the gut. This tumour was also removed, together with a haematosalpinx on the right side. Uneventful recovery followed. The large tumour proved to be packed with brown, soft material, consisting of organized blood or placental tissue. As the 7 to 8 cm. long cord, projecting from the umbilicus, lay outside the membranes in which

the foetus was wrapped, the author suggests that they were not, as he thought at first, the original foetal membranes, but the result of a deposit of peritoneal fluid about the foetus after its escape from a ruptured tube. There was no free fluid in the peritoneal cavity.

#### 190. Statistics of Fibroid Operations.

PESTALOZZA (*Il Policlinico*, Sez. Prat., November 22nd, 1920) gives the following statistics of 769 cases of fibroids on which he had operated during the last ten years. In 120 cases myomectomy alone was performed, and in these cases the superiority of surgical treatment over radiotherapy appeared to be indisputable. In 45 of these cases it was possible to cover the wound with the serous coat taken from the vesico-uterine fold, as in Pestalozza's method of pelvic hysteropexy. The total mortality was 2.4 per cent. In 16 cases fibroids were associated with cancer; in some instances there were ovarian tumours. Necrosis was present in 32 cases. Eight cases occurred in pregnancy; sixteen showed cavity formation; nineteen were of enormous size.

#### 191. Treatment of Septic Abortion.

OF a series of 200 cases of septic abortion treated by HILLIS (*Surg., Gyn., and Obstet.*, December, 1920) half received no local treatment, and half were curetted; the former group had fewer days of fever, fewer complications, a shorter stay in hospital, and a lower mortality. It is concluded that cases of septic abortion should—excepting those in which haemorrhage threatens life—receive no local treatment until they have been for at least five days free from fever. On the other hand, it is advisable at the end of this period to curette cases which have become afebrile; this operation prevents subsequent bleeding and shortens the stay in hospital. Of 122 cases of non-septic abortion, no fewer than 32 per cent. were deliberately induced.

#### 192. Pelvic Kidney Mistaken for Haematometra.

PETERSON (*Amer. Journ. of Obstet. and Gyn.*, November, 1920), in an article dealing with errors in gynaecological diagnosis, describes the case of a girl, aged 17, who had never menstruated, but had recently suffered from periodic attacks of malaise and lower abdominal discomfort. Rectal examination failed to reveal with distinctness either uterus or appendages, but a globular mass could be felt at the end of the examining finger. In the absence of a vagina this mass was taken to be a haematometra. At operation, after dissection upwards for three inches of the tissue between the rectum and bladder, a scalpel plunged into the mass called forth an alarming haemorrhage, which could only be stopped by a tight gauze pack. There was much subsequent haematuria. Peterson alludes to similar cases reported by Cullen and Engstroem, and to an instance in which a girl of 21 died from uraemia seven days after removal of a pelvic tumour which, in the absence of a vagina, had been originally diagnosed as a haematometra (Buss).

### PATHOLOGY.

#### 193. The Anaerobic Flora in Intestinal Diseases.

ACCORDING to CAPONE (*Lo Sperimentale*, Fasc. i-iii, 1920), who has made a study of the anaerobic flora in certain morbid conditions of the intestine—namely, bacillary dysentery, enterocolitis of uncertain etiology, and typhoid fever—there is a great diminution and often a complete disappearance of the anaerobic putrefactive intestinal organisms in these conditions. He considers that some species of anaerobes which have been isolated exclusively from cases of intestinal disease cannot be regarded with certainty as the pathogenic agents of some of the diseases studied.

#### 194. Xanthochromia.

LEVISON (*Arch. Int. Med.*, October 15th, 1920) reports three cases in which the spinal fluid obtained by lumbar puncture was of a bright yellow colour, and discusses the significance of this condition. Xanthochromia has been found in such a variety of spinal conditions that no etiological factor would seem to be common to all. It has been observed in neoplasms of the cord and its membranes, gumma of the meninges, adhesions between the membranes, vertebral tumours and fractures, tuberculous meningitis and spondylitis, spinal gliosis with syringomyelia, multiple sclerosis, pachymeningitis, and several other conditions. The yellow fluid by itself is perhaps not of much importance, but when in association with the

colour there is an increased coagulability of the fluid, then there is practically always some obstructive lesion of the spinal canal. The obstruction to the flow of the cerebro-spinal fluid allows of the formation of a pocket in which the fluid stagnates, and into which various elements pass by transudation from the vessels within its walls. It is sometimes possible to obtain haemoglobin reactions in certain cases of xanthochromia, and it has been suggested that there are minute haemorrhages into the spinal canal and ventricular spaces to account for the yellow coloration, and it may be that decomposition of the haemoglobin has proceeded so far in the other cases that one fails to discover traces of it. It must be admitted, however, that the occurrence of yellow spinal fluids is not yet satisfactorily explained.

#### 195. Wildbolz's Auto-urine Reaction in Tuberculosis.

GRAMÉN (*Hygienia*, November 16th, 1920) has tested Wildbolz's reaction in about 50 cases of latent or active tuberculosis and in a certain number of healthy "controls." When the disease was definitely active the reaction was unmistakably positive, as shown by the formation of a small circumscribed swelling in the skin at the point where one to two drops of the patient's urine, reduced to one-tenth of its original volume by evaporation *in vacuo*, had been introduced by intracutaneous injection. In another class of case, in which the clinical signs pointed to more or less complete arrest of the disease, the reaction was either negative or faintly positive. Thus there would appear to be some justification for the claim, made by Wildbolz, that the auto-urine reaction distinguishes between active and latent disease, and is therefore superior to von Pirquet's tuberculin test, which only indicates presence or absence of infection without discriminating between infection and active disease. A disconcerting finding in some of Gramén's cases was a positive reaction, although the person concerned was either a "control" or a patient whose tuberculosis was, on the clinical evidence, arrested. But the author attaches such importance to the reaction that when it and the clinical evidence disagree, he is inclined to suspect the reliability of the latter. He experienced little difficulty in deciding whether a reaction was positive or negative, but he found at first some difficulties in the technique, for it was not easy to deposit the urine at the precise level of the skin where it would neither be too superficial and produce necrosis, nor too deep and thus fail of its object—hence the finding that of two simultaneous intracutaneous injections in the same person, one might be negative and the other positive. It is therefore advisable to give at least three injections simultaneously in different parts of the skin.

#### 196. A Modification of Dargallo's Stain for Elastic Fibres.

DARGALLO (*Rev. Españ. de Med. y Cir.*, November, 1920) describes a modification of his stain for elastic fibres; the period of staining is thereby reduced from eight hours to fifteen to twenty minutes. A rather thick film of sputum is subjected to the action of nitric acid (1 in 3) for five minutes; without subsequent washing the stain is added, consisting in fuchsin (Ziehl) 3 parts, ordinary alcohol 2 parts, and saturated solution of ferric chloride 1 part. (The stain must be freshly prepared.) Washing is performed in running water, and may be supplemented, in the case of very thick films, by addition of ordinary alcohol or (momentarily) of nitric acid, 1 in 3.

#### 197. Determination of Blood Volume.

HARRIS (*Brit. Journ. of Exp. Path.*, June, 1920), from an investigation of the vital red method of estimating the total volume of blood in the body, is of opinion that the values given are too high. In this method a known quantity of the dye is injected into the blood stream, and a definite amount of blood is withdrawn after a few minutes. By comparing serum dilutions of known strength before and afterwards the concentration of the dye in the sample can be determined. Harris states that the dye leaves the blood vessels even before it has spread uniformly through the circulating blood. The best interval for withdrawal of the test sample would seem to be from two to two and a half minutes after injection of the dye. The author, by using a control method which consists in the removal of the maximum amount of haemoglobin compatible with life whilst keeping the blood volume constant by the simultaneous injection of gum saline, suggests that a correction coefficient will give more accurate estimations in the case of the vital red values. This coefficient in man will lie between 0.8 and 0.9. Congo red, however, gives truer values, the correction coefficient in this case being 0.9 for four-minute samples.