

# EPITOME OF CURRENT MEDICAL LITERATURE

## Medicine

### 85 Diphtheritic Endocarditis

G. J. BUDDINGH and K. ANDERSON (*Arch. intern. Med.*, April, 1937, p. 597), who record an illustrative case, state that only six examples of acute vegetative endocarditis caused by the diphtheria bacillus have hitherto been reported. In three of these cases the micro-organisms, while presenting the morphological and cultural features of the diphtheria bacillus, were not virulent to guinea-pigs. The authors' patient was a boy, aged 16, who suffered from rheumatic heart disease, and whose principal symptom was repeated epistaxis which required packing. Death took place after seven months' illness with symptoms of ulcerative endocarditis. At necropsy a large friable fibrinous vegetation from which virulent diphtheria bacilli were grown was found along the edges of the mitral valve; the portal of entry was most probably the nasopharynx, in which ulceration had been caused by the packing.

### 86 Cramp in the Leg

J. WILDER (*Wien. klin. Wschr.*, June 11, 1937, p. 895) has studied for many years the occurrence of cramp in the calves, and has found this phenomenon to be more common than is usually supposed. A maximal tonic contraction of a muscle takes place, which lasts for from one to six minutes, giving rise to intense pain which leaves the muscle tender for several days but which does not impede locomotion. Powerful passive stretching of the muscle may cut the attack short. Various aetiological factors are cited in the literature; these include metabolic disturbances, such as gout, diabetes, kidney disease, and pregnancy; poisons—for example, alcohol, lead, and arsenic; vascular diseases; static and dynamic factors, as, for instance, flat-feet and occupational dysfunction; neuritic diseases; and avitaminoses. Wilder examined 2,443 cases, and found a history of cramp in 33 per cent. of healthy persons and 40 per cent. of diseased persons. The symptoms usually occurred in the fourth decade, and slightly more often in men than in women; manual and sedentary workers were equally affected. High uric acid values were more common in cases with cramp than in normal cases. Normal diuresis was found in 31 per cent. of these cases, increased diuresis in 24 per cent., and decreased diuresis in 46 per cent., indicating a renal factor in the aetiology of the condition. Cramps were more often noted in alcoholics than in teetotallers. In a series of 1,413 patients suffering from various diseases Wilder found that this condition was common in those with arteriosclerosis, neurosis, chronic arthritis—especially spondylarthritis—and flat-feet. In certain conditions—as, for example, hyperthyroidism—cramps were less often found than in healthy persons. In many cases diathermy and a vegetarian diet, given to lower the hyperuricæmia, controlled the cramp. The author believes that it is due to a lowering of muscular tone, and that irritation of the peripheral nerves and the accumulation of uric acid in the blood are exciting factors.

### 87 Hypertension in Young Adults

M. A. TOURNIARE (*J. Méd. Lyon*, June 5, 1937, p. 331) draws attention to a not uncommon condition occurring chiefly in young persons, aged between 20 and 26, which he terms "hypertension sympathique solitaire." Fifteen cases have been studied in the past six years, and the disease was latent in five; the remainder complained of dyspnoea and palpitations, and a few of precordial pain following exercise, emotional disturbance, or a meal. The

systolic blood pressure was found to be moderately increased; the diastolic pressure was in all cases normal. In some cases the blood pressure was raised following exercise, but fell after a period of rest. In no case could cardio-vascular disease be discovered, and in three cases the basal metabolic rate was raised. Tourniare points out that this condition must be differentiated from true juvenile hypertension, in which the diastolic readings are high and do not fall, even after long periods of rest. The patients complain of the classical symptoms of arterial hypertension, and there is usually hypertrophy of the left ventricle. In the former the condition is stationary, and never ends in cardiac failure. In the latter the condition is progressive and the prognosis grave. The author believes that the former type of hypertension is due to a simple hyperactivity of the sympathetic nervous system and belongs to the group which includes nervous tachycardia, and is characterized by hypertension, tachycardia, a raised metabolic rate, and the absence of hormonal dysfunction; these symptoms occur either alone or in conjunction with one another. He is of the opinion that "hypertension sympathique solitaire" is a result of a functional disturbance of the vasomotor centre and the hypothetical centre which governs the basal metabolism. Tourniare states that the sole treatment required is that of progressive readaptation of the heart to effort, aided in severe cases by radiotherapy as used in nervous tachycardia. Rest, cardiac tonics, drugs for lowering the arterial tension, and sedatives for the sympathetic nervous system are all measures which the author condemns.

## Surgery

### 88 Fibrocystic Disease and Hyperparathyroidism

J. BAUER and A. JUNG (*Rev. Chir.*, Paris, April, 1937, p. 284) report an interesting case of a woman of 34 years who complained of a violent pain in the right thigh and hip after a fall. A diagnosis of a neoplastic metastasis in the right femur was made radiologically, and radiotherapy was given with some success. Two years later there were similar pains in the left thigh, and both hips were treated by radiotherapy with no result. There was a history of an early fracture of the right radius which had left a deformity, although function was good. Menstruation had not begun until the age of 20, and had now ceased. The patient was married, but she had no children. Radiological examination showed a generalized osteoporosis and the presence of numerous areas of bone-absorption. These appearances suggested that the patient was suffering from generalized fibrocystic osteitis. Radiography showed the characteristics of fibrocystic disease, and laboratory tests confirmed this diagnosis. Although no parathyroid tumour could be seen or felt it was assumed that there was one, and operation revealed a large adenoma in the region of the right inferior thyroid artery, which was removed. Pain disappeared after operation, but a spontaneous fracture occurred in the left femur and was put up in extension. The day after the operation the sign of Chvostek was seen, first on the left side of the face, then on the right, and there was paraesthesia in the arms and leg. Gluconate of calcium was given intravenously and by the mouth. A typical attack of tetany developed, and there was a sudden alteration in the blood calcium content, which fell to 70 milligrammes the day after operation. Ammonium chloride was then given, and later a coffee of gluconate of calcium. The condition of the patient gradually improved and the fracture united satisfactorily. The authors consider that this case illustrates the influence of the parathyroid hormone on the osteoclastic resorption of bone.

**89 Carcinoma of Vater's Ampulla**

G. NEMÉNYI (*Zbl. Chir.*, June 5, 1937, p. 1337) describes a new operative technique for carcinoma of Vater's ampulla. He covers the stump of the pancreas with the descending part of the duodenum, the anterior wall of which remains attached to the horizontal inferior part of the duodenum in the form of a flap. In this way the pancreas is covered with a relatively mobile piece of intestine lined with peritoneum. Instead of the blind occlusion of the superior horizontal part of the duodenum combined with a posterior gastro-enterostomy, the author recommends an anastomosis between the horizontal superior part of the duodenum and the jejunum. The jejunal loop used for the anastomosis is also provided with a Braun's anastomosis in order to prevent a back-flow into the duodenal segment overlying the head of the pancreas, since this is likely to give rise to pancreatitis.

**90 Enlarged Supraclavicular Glands**

H. SCHNEIDER (*Med. Klinik*, May 21, 1937, p. 699) states that the presence of carcinomatous metastases in the left supraclavicular fossa from a primary tumour in the stomach, intestine, or uterus has been recognized since the time of Virchow. The glands are enlarged, painless, and firm; they lie superficially, and are easily moved under the skin. In Schneider's opinion they are uncommon, but they may be present when a primary carcinoma cannot be found clinically. In the presence of the glands the primary tumour is usually regarded as inoperable, but the author believes that such a decision is untenable. He cites cases in the literature and reports a case of his own in which primary carcinoma existed together with enlarged supraclavicular glands, which were not metastatic but tubercular. He suggests that in all cases a gland should be excised and examined histologically, so that an operable tumour may not be overlooked and the patient labelled as incurable. He points out that carcinoma and tuberculosis quite often coexist. In some cases carcinoma occurs in old healed tuberculous foci; in others metastatic and tubercular glands occur together; a new tuberculous lesion may be implanted on a carcinoma; and chronic tuberculosis and carcinoma do occur together.

**91 Embolism after Injecting Varicose Veins**

A. WESTERBORN (*Acta chir. scand.*, May 1, 1937, p. 321) calculates that, between 1927 and 1934, in all the ninety-three Swedish hospitals about 30,000 patients were given intravenous injections for the treatment of varicose veins. There were eleven deaths from pulmonary embolism, of which six were verified at necropsy. There were also six cases of pulmonary embolism with recovery. The mortality was therefore 0.036 per cent., or, if two of the doubtful fatalities be excluded, 0.03 per cent. For the purpose of comparison the author has collected from eighty-two Swedish hospitals the records of 6,994 operations for varicose veins from 1921 to 1925; this length of time was chosen because it approached most closely to the subsequent injection period. There were eighteen deaths from pulmonary embolism, making the post-operative mortality from embolism 0.26 per cent. The author has correlated the fatal and non-fatal cases in his own material and in the world literature with the various drugs injected, and he has not found any significant relationship between the type of solution employed and the incidence of embolism. This may be due, however, to the fact that the emboli in question were derived from secondary coagulation thrombi and not from the original injection thrombus; in none of the author's six cases coming to necropsy had the original injection thrombus become detached. He traces post-injection pulmonary embolism to an infection, either local or general, to defective circulation, and to an individual predisposition to thrombus

formation. Old age is also an important factor; all the author's patients were over 45. The influence of a defective circulation is increased by immobilization, and so he advises that patients should be kept out of bed as much as possible after an injection.

**92 Painful Calcanean Spur**

H. SPITZY (*Munch med. Wschr.*, May 21, 1937, p. 807) reports the results of a simple surgical operation carried out in seventy cases of painful calcanean spur. He considers that the pain is mainly due to traction by muscles and fasciae, and only partly to the pressure caused by the weight of the body on the foot. He therefore cuts through the muscles and fasciae at their point of attachment to the spur by means of a tenotome. The technique, which is very simple, is described in detail. Approximately two-thirds of the patients treated in this way were cured; nine cases came back with other complaints, such as flat-foot, arthritis of the foot, etc.; and in two cases the operation failed.

**Therapeutics****93 Gold Salts in Chronic Carditis**

M. WYBAUW (*Scalpel*, Liège, June 12, 1937, p. 749) gives a detailed report of eleven cases of chronic progressive carditis in adults in which treatment by gold salts was given with good results. The majority of cases occurred in women, and there was often a family record of tuberculosis or rheumatism. The onset of the cardiac lesion was due to varying causes such as angina, pleurisy, pleuropneumonia, or rheumatism. In some instances no such cause could be traced, and the patients had previously been in good health. The symptoms were loss of weight, anorexia, profuse sweating, and muscular asthenia. Acute cardiac pain was common and was paroxysmal, while palpitations and dyspnoea were usually present. Diagnosis of the simple forms of infective endocarditis may be uncertain, but radiology and electrocardiography are indispensable in determining the degree of myocarditis and in demonstrating the condition of the heart muscle. The laboratory tests were also of diagnostic value, and showed the sedimentation rate to be increased, while leucocytosis, lymphocytosis, and eosinophilia were generally present. In the eleven cases reported myochrysin was given in eight instances, oleochrysin in three, allochrysin in one, and both oleochrysin and myochrysin in another case. The immediate results were successful, and the general condition of the patients improved. Cardiac function was better, pain was relieved, and the dyspnoea was diminished. Treatment appeared to have arrested the development of the disease, although it did not cure it. In many cases improvement continued, although the end-results of the treatment have yet to be estimated. Particulars of the dosage and the general treatment are given.

**94 Acute Osteomyelitis**

G. BAGGIO (*Rif. med.*, May 29, 1937, p. 779) reviews the literature and records eleven cases of osteomyelitis affecting the femur, tibia, scapula, rib, or ilium in which no operation was performed, and there was only one death. Cardiac stimulants were administered, an early assimilated diet was given, and the affected part was immobilized and continuously treated with hot fomentations. In all but the single fatal case the acute inflammation subsided spontaneously either by the evacuation of an enormous quantity of pus through the skin or by absorption. While admitting that his cases are few in number and that further investigation is desirable, Baggio maintains that osteomyelitis may be cured in the acute stage without any surgical operation.

## Ophthalmology

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### Aetiology of Squint

A. BIELSCHOWSKY (*Amer. J. Ophthalm.*, May, 1937, p. 478) points out that there is still no satisfactory explanation of squint, instancing the frequent failure of Donder's accommodative theory. Three factors form a basis of investigation: (1) mechanical factors, (2) excessive innervation, and (3) a combination of both. Each may produce a periodic squint, but it is only in the presence of a weak fusion faculty that this condition becomes permanent. Of normal persons 80 per cent. have a latent squint, which may develop if the fusion faculty is suspended. Prolonged excessive innervation or mechanical factors may result in secondary changes in the muscles. Ocular torticollis is due to trochlear paresis, congenital or acquired, or to an anomalous insertion of the internal rectus. The author stresses the importance of heredity; the parents do not necessarily show a visible squint, but there are neuro-pathic tendencies. Failure to obtain binocular vision after operation or training may be due to horror fusionis or aniseikonia.

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### Uveitis

A. L. BROWN (*Amer. J. Ophthalm.*, June, 1937, p. 583) has used typhoid H antigen intravenously, together with paracentesis, with good results in the treatment of all forms of uveitis except the syphilitic or tuberculous types. Acute affections of the uveal tract responded best. Probably the antibodies present in the eye interfere with the activator as it reaches the uvea, or they unite with available receptors and render the activators inert. The same treatment has been used as a prophylactic against sympathetic ophthalmia in cases of traumatic laceration of the ciliary body.

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### Pathogenesis of Acute Glaucoma

A. BRAV (*Med. Rec.*, June 2, 1937, p. 447) is dissatisfied with most of the theories advanced on this subject. He believes that acute glaucoma is caused by increasing pressure on Schlemm's canal from hypertrophy of the ciliary processes. The proper use of optical corrections, which had been prescribed first before the age when prodromal symptoms might be expected, would prevent the onset of this condition. Eserine, by pulling upon the ciliary body, and iridectomy, by producing a cyclodialysis, both release pressure on the canal of Schlemm.

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### Spasmodic Retraction of the Upper Lid

J. VOISIN (*Arch. Ophthalm.*, Paris, May, 1937, p. 391) distinguishes between an enlarged palpebral fissure which is self-evident and that elicited on examination of the muscular movements. The term "retraction" should be reserved for the former class, of which a special section is here considered. The retraction is usually slight, exposing a little sclera above the cornea. It is seen in many cases allied to Graves's disease, in irritation of the cervical sympathetic, and some dental affections, and as a sequel to encephalitis, cerebral lesions, cerebral tumour, hydrocephalus, and syphilis. It may be brought about by a hypertony of the smooth or the striated muscle actuating the upper lid, and may be due to a process of decerebration or to an irritation.

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### Fundus Lesions in Polycythaemia

M. COHEN (*Arch. Ophthalm.*, Chicago, May, 1937, p. 811) differentiates primary polycythaemia from the secondary type due to congenital heart disease, emphysema, stenosis of the pulmonary artery, and dehydration of the tissues, and from the hypertonic type which is associated with arteriosclerosis and cardiac and renal disease. The associated cyanosis of the retina is only visible in the main

blood vessels, the condition of the rest of the fundus being obscured, except in albinos, by its pigmentation. Sometimes the cyanosis is most marked in the physiological cup. Any lesion of the fundus is due to venous stasis; there were no lesions in the cases of secondary polycythaemia in the author's series. He reports oedema of the disk, retinal haemorrhages, white lines along the veins, and venous thrombosis. The prognosis depends upon the severity of the disease in the primary, and of the exciting condition in the secondary, type. In the former venesection, phenylhydrazine, and irradiation are helpful; in the latter the causative disease must be attacked.

## Obstetrics and Gynaecology

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### Lightening

RUDOLF (*Surg. Gynec. Obstet.*, May, 1937, p. 906) discusses the phenomenon of lightening during the last weeks of pregnancy. He suggests five mechanisms by which the presenting part might descend into the pelvis. The first is the formation of the lower uterine segment, which is progressively demonstrable in frozen sections from the second month to term, and clinically recognizable as Hegar's sign. The measurements compare fairly accurately with those taken at Caesarean section. At the thirty-sixth week the lower uterine segment relaxes so as to accommodate the descent of the presenting part in response to intra-abdominal pressure. Relaxation is shown by the flattening of the cervix and the shortening of the distance between cervix and fundus. Nevertheless, lightening is sometimes experienced even though the head remains high. The second mechanism is the relaxation of the soft parts, due possibly to "relaxin," though this has not yet been demonstrated in the human female. When the cervix shows no appreciable descent and the foetal head is high but can be pressed into the pelvis relaxation has failed to take place; this abnormality is functional, not mechanical. Mobility of the posterior attachments is the third mechanism. The yielding of the muscle fibres in the posterior ligaments allows for the noticeable increase of antelexion and anteversion, the anterior attachments providing a pivot. After labour has begun the posterior wall has to be pulled up to the level of the anterior attachments. This is made possible by a further yielding of the utero-sacral ligaments and an equal dilatation of the lower segment, together with the straightening of the birth canal. The fourth mechanism is the relaxation of the abdominal muscles, which occurs gradually or suddenly, as, for example, after a meal. The author suggests that the stimulus comes from pressure of the descending part upon the uterus or intrapelvic soft tissues, by way of the segmental reflex arcs which innervate the abdominal muscles, and the sensory influences which keep them at a lower tone than usual. The last mechanism is the cephalo-pelvic relation, which is mechanical and, if faulty, can be diagnosed by inability to press the presenting part into the brim. This demonstration of the sequence of the vertical changes in the three portions of the uterus shows the purpose of the phenomenon of "lightening" to be preparatory to labour and its value as a clinical guide.

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### Intravaginal X-Ray Treatment

F. ERICHSEN (*Zbl. Gynäk.*, June 5, 1937, p. 1330) is satisfied that he has had better results in the treatment of inoperable cervical carcinoma since he introduced six years ago a supplementary x-ray treatment by a Schaefer-Witte tube introduced into the vagina. Primary parametrial or secondary pelvic wall deposits are thus more accessible, and in contrast to radium treatment the use of a very high irradiation dosage is compatible with the protection of neighbouring healthy tissues. The general scheme of treatment is: (1) radium, 4,000 to 5,000 milli-



gramme-hours being given; (2) percutaneous x-radiation, 1,800 *r* being applied from four to six front, back, and side fields, and 800 *r* from a perineal field; this is alternated with (3) 1,600 to 2,000 *r* at a depth of 5 cm. directed to the right and left pelvic walls from the intravaginal water-cooled tube. Increase beyond the last-named dose is useless if not harmful, and the whole treatment occupies about forty days. Disturbances of rectal and vesical function may follow, but no fistulae developed; the lateral vaginal walls showed transitory appearances of membranous inflammation. In inoperable (Groups III and IV) patients thus treated, 38 per cent. were living and symptom-free from one and a half to four years later, as well as three out of twelve patients who were treated for local recurrences.

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## Endometrioma

ROCMANS and PEITFRERE (*Bruux. méd.*, May 2, 1937, p. 1001) define an endometrioma as a tumour which possesses the characteristics of endometrium but which occupies an abnormal position. It occurs most often in young women and may be situated in various regions. Two cases are reported, in one of which the tumour was on the upper part of the broad ligament and in the other it was adherent to the recto-vaginal septum. In the first case the patient had suffered from pain in the right iliac fossa for four years. This pain, which radiated to the right hip and the lumbar region, became severe enough to necessitate operation. A tumour the size of a large nut was removed from the broad ligament, and was found on microscopical examination to have the characteristics of an endometrioma. In the second case the patient had complained of indigestion for three years, particularly at her menstrual periods, with vomiting and lumbar pain. Appendectomy, together with the removal of the left adnexa, was carried out, and a small cystic nodule was felt in the pouch of Douglas but was not removed owing to adhesions. A year later this tumour had grown and was adherent to the posterior vaginal wall and the adjacent tissues. There were symptoms of tenesmus and some menstrual irregularity. A posterior colpotomy was performed, which gave access to the tumour. It was found to be an endometrioma, but was too adherent to be removed. Two tubes of radium were inserted, and a month later menstruation became normal, the symptoms disappeared, and the size of the tumour began to decrease. The origin of these tumours is discussed and the various theories which have been put forward are considered. The method of treatment must vary according to the localization and fixity of the tumour, the age of the patient, and the risk of injuring the reproductive organs.

## Pathology

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## Simple Blood Sedimentation Test

STEIGER (*Münch. med. Wschr.*, June 11, 1937, p. 939) points out that the blood sedimentation test has proved its value in the discovery of pathological processes even when there is no clinical evidence. Its technical difficulties according to the standard methods are great, and the test cannot be performed in practice. He suggests a simple modification which gives fairly accurate results. An ordinary blood pipette graduated up to 100 mm. is used. Sodium citrate solution, 3.8 per cent., is drawn up to the 25 mm. mark and then blown on to a watch glass. The patient's finger is cleansed with ether and blood taken with a needle. The blood is drawn into the pipette up to the 80 mm. mark and then mixed with the citrate solution by blowing it in and drawing it up again into the pipette. When the blood has been thoroughly mixed with the citrate solution it is drawn up to the 100 mm. mark; a small bubble of air is allowed to remain at the tip of the pipette, and the end is sealed with candle grease or collodion. It is then hung up and the sedimentation value

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read off at the end of an hour. A fall of 10 mm. is normal, of 20 mm. increased, and a greater fall is pathological. The advantages of this method are that it can be performed quickly in any surgery during the routine examination of the blood, it requires no elaborate preparation, is accurate in its results, and can be used frequently during the course of an illness to estimate prognosis.

## 104

## Weil-Felix Reaction

A. P. DE RODA (*J. Philipp. Isl. med. Ass.*, 1937, 17, 147) has made some interesting observations on the frequency of Weil-Felix reactions in the Philippines. Blood serum from 500 febrile cases was tested against *Proteus* OX 19, OX 2, and OX K. Altogether 256 sera agglutinated one or more strains in a titre of 1 in 100 or over. Of these, 209 (82 per cent.) reacted at 1 in 100 to 1 in 200, while forty-seven (18 per cent.) reacted at a titre of 1 in 500 or over. The highest titre observed was 1 in 5,000. Most of the cases had been diagnosed clinically as typhoid fever or influenza. The author regards those sera agglutinating at 1 in 500 or over as coming from undoubted cases of typhus fever. A considerable proportion of sera agglutinated more than one type of *Proteus* X. Thus, of the forty-seven sera agglutinating one organism to 1 in 500 or over, ten agglutinated OX 19 only, two OX 2 only, twelve OX K only, fifteen OX 19 and OX 2, four OX 2 and OX K, and four OX 19, OX 2, and OX K, the titre to the second or third organism being 1 in 100 or over. Of the forty-seven typhus cases, thirty agglutinated *B. typhosum* to a titre of 1 in 50 or over. These findings are of importance in showing (1) the existence of previously unrecognized typhus fever in the Philippines, (2) the high titre required in the Weil-Felix reaction before a positive diagnosis could be made, and (3) the frequency with which more than one type of *Proteus* X was agglutinated. The typhus fever, it may be added, was of a benign type; only three of the forty-seven cases died.

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## Diabetes Insipidus

G. MONASTERIO and M. LUCARELLI (*Rass. Fisiopat. clin. terap.*, April, 1937, p. 205) record their observations on four cases of diabetes insipidus in patients aged from 18 to 47. Besides some considerable changes in the metabolism of water and salts, which are characteristic of the disease, a disturbance of the glucose regulation, occasionally of the lipid exchange, and rarely of the energy exchange, may take place. The functional disturbance of the diencephalo-pituitary system is not limited to the regulation of the hydrosaline exchange, but it may also involve the regulation of other exchanges, especially that of glucose. The assemblage, in a very narrow space, of the centres regulating the various exchanges and of the secretion of the different hormones from a single gland, the hypothesis, so closely connected anatomically and functionally with the diencephalon, account for the fact that the disturbances of the exchanges in diencephalo-pituitary syndromes are usually more or less complex.

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## Kahn and Meinicke Reactions

A. S. AZZI and A. DEL FRADE (*Arch. Soc. Estud. clin. Habana*, March, 1937, p. 187) made a study of the relative sensitiveness of the Kahn (standard), Meinicke (M.K.R.II) and Sellek Frade modification of Meinicke's test in 100 congenital syphilitic children. Positive results were obtained in 19 per cent. of the Kahn tests, in 19 per cent. of the Meinicke tests, and in 95 per cent. of the Sellek Frade modification of the Meinicke test. In seventeen cases concordant results were obtained with all the tests. Of the seventy-seven cases in which the Sellek Frade reaction was positive, forty-three showed probable evidence of syphilis, while the remaining thirty-four were apparently normal. This is perhaps due to the fact that congenital syphilis in Cuban children at the present time is of an attenuated character, and the severe forms described in the textbooks are rare.