

## AN EPITOME OF CURRENT MEDICAL LITERATURE.

## MEDICINE.

## 35. The Diagnosis of Sciatica.

W. ALEXANDER divides errors of diagnosis of sciatica into two groups—the avoidable and the unavoidable (*Berl. klin. Woch.*, April 29th, 1912). The first group can be again subdivided into the mistaking affections for sciatica which have nothing to do with the disease and those which, although involving the area of the sciatic nerve, are not of the nature of true sciatica. Spondylitis deformans is at times mistaken for sciatica or lumbago. The gradual commencement of the disease, getting steadily worse, the implication of other parts of the spinal column, and the result of the roentgenogram should suffice to prevent this mistake. Care, however, must be exercised in early cases, when the roentgenogram may be negative. Traumatic detachment of the vertebral spinous processes will only be confused with sciatica when the former is not thought of. Tuberculous or other disease of the sacro-iliac symphysis can be distinguished from sciatica by careful physical examination. The differential diagnosis between sciatica and chronic senile hip disease is based on the fact that pain is experienced on passive movement, even when the limb is flexed, and also when the head of the femur is driven on to the acetabulum. Less difficulty presents itself in cases of osteomyelitis, or sarcoma of the shaft of the femur. Intermittent limping has been mistaken for sciatica several times. The pain is always independent of passive movement; circumscribed pressure points are always absent, and the pulsation of the posterior tibial and dorsal foot arteries is absent. Neuralgia of the external femoral (cutaneous) nerve will only be mistaken for sciatica on rare occasions, and after incomplete examination. Neuralgia of the crural nerve may be overlooked, but as a rule the weakness of the extensor muscles and the absence of the patella reflexes should correct the error. Next the author deals with tabes, multiple sclerosis, and paralysis agitans. In all these a careful physical examination should exclude the mistake. Some difficulty may be experienced in rare cases of *adipositas dolorosa*. The accompanying symptoms of flat-foot may simulate the symptoms of sciatica, and the same applies to those of varicose veins. But in both cases the absence of nerve pressure points, and the localization of the pain will put the practitioner on his guard. He discusses the question of the alleged gouty origin of sciatica, which he states is far more rare than is usually supposed, and then gives the numerous differences between sciatica and neurasthenic and hysterical sciatica. If the patient was neurasthenic before the attack of sciatica, the exaggeration of the symptoms depending on pain, the continuity of the complaints, the painful effect of all passive movements, even with flexed leg, and the denial of improvement, should suggest neurasthenia. Hysterical sciatica practically only occurs in women, and the diagnosis must be made on the usual signs of hysterical symptoms. Passing on to the second subdivision of the avoidable errors, he first speaks of pain in the neighbourhood of the sciatic nerve in diseases of the knee-joint, especially when there is marked swelling of the periarticular tissue. This should put the practitioner right. Affections of the abdomen, pelvis, and vertebral column, such as osteomyelitis, tumours, ureteral tuberculosis, rectal cancer, etc., must be distinguished by physical examination. Retroflexed uterus, when gravid or fixed by parametric bands, may also lead to confusion. Of the unavoidable errors, tumours and cysts of the spinal cord, and especially of the cauda equina, and spinal meningitis, are the chief. In conclusion, he points out that the application of every means of examination should in the great majority of cases not only lead to a correct diagnosis, but give information as to the exact condition of the nerve and the surrounding tissues.

## 36. Myasthenia Gravis.

MASSALONGO (*Rif. Med.*, March 2nd, 1912), discussing the above disease with special relation to the various pluriglandular theories as to its causation, concludes on the following lines. Myasthenia with its three characteristic features of speedy muscular exhaustibility, asthenia and paresis after exercise or fatigue, is only found in subjects organically and morphologically predisposed to it through an innate weakness or exhaustibility of the grey motor

centres of the mesencephalon and spinal medulla. This organic or functional deficiency is unequally distributed throughout the different centres and hence causes a diversity in the various clinical forms of the disease. It is not possible to conceive of a functional anomaly without postulating some corresponding change in the intimate structure of the functioning elements. Not every person predisposed to myasthenia becomes a myasthenic; exciting causes—for example, fatigue, moist cold, traumatism, emotions, infections, and intoxications—may be necessary to precipitate the development of the disease. The author does not consider that the pluriglandular theory is proved, although it is impossible, since we do not know enough as to the powers of the endocrinic system, to deny this as a possibility. On the evidence of the *post-mortem* table a muscular theory of myasthenia would be more justifiable than a pluriglandular. Neither theory is, in the author's view, as convincing as his own, which relegates the disease to an innate weakness of parts of the nervous system as suggested above.

## 37. Transitory Pseudo-bulbar Paralysis Originating in the Protuberance.

A. HALIPRÉ (*Rev. neurol.*, February, 1912) describes a case of pseudo-bulbar paralysis in a child of 13, following suddenly an attack of subacute rheumatism complicated with mitral endocarditis. There was a complete left-side labio-glossal and facial paralysis, and on both sides paresis of the limbs. A few weeks later the labio-glossal symptoms cleared up, leaving only a nasal speech. The facial paralysis and likewise the paresis of the limbs remained, accompanied by incontinence of the urine and faeces. A progressive cachexia followed, and at the end of three months from the attack the child died of pneumonia. The autopsy revealed a small area of softening in the pars superior of the left side of the protuberance, above the level of the seventh nucleus; the twelfth nucleus was also not affected. Anatomically, the interest of the case was the situation of the lesion on the left side instead of the right. The writer refers to Brown-Séguard's statement that "in about half the number of cases of isolated lesions in the pedunculi, the protuberance, or the bulbus above the decussation, are *direct* and not *crossed*, whether the seat of the lesion is in front, behind, or a lateral one," adding "that the explanation of these paradoxical facts is still wanting." The clinical interest of the case is the existence of a complete labio-glossal paralysis, which afterwards disappeared. The symptoms can only be explained by the assumption that the associations between the bulbar nuclei and cerebral centres were temporarily cut off by congestive lesions.

## SURGERY.

## 38. Surgical Treatment of Hypertrophy of the Thymus.

EUGÈNE OLIVIER (*Arch. gén. de chir.*, February 25th, 1912) is of opinion, as a result of researches conducted during the past three years, that surgical treatment of hypertrophy of the thymus gland is superior to any other. Radio-therapy is highly commended by some observers quoted by the author; it must be applied in repeated doses, in cases not too well pronounced, and the rays must be filtered and directed on the thymus itself. Olivier regards the method as wanting in precision in comparison with the surgical or operative method in which the gland is attacked in full view, and he therefore rejects radio-therapy. Since 1896 three operations have been practised for hypertrophy of the thymus: (1) Exothymopexy, (2) resection of manubrium sterni, (3) thymectomy. (1) Exothymopexy is described by Rehn as follows: Medium longitudinal incision through skin to upper edge of sternum, opening of upper part of mediastinal space, grasping thymus gland and its capsule by forceps, drawing it upwards, and fixing it by some suture points to the suprasternal fascias. Rehn's case did well, but the author points out the risk of compression of the veins of the neck. Most authors use this procedure as an adjunct to partial thymectomy. Olivier rejects absolutely the operation of simple exothymopexy on the grounds that it is not any easier than removal of

the gland, and that the gland should be removed as its integrity is not essential to the welfare of the organism. (2) Resection of manubrium sterni is designed to augment the upper orifice of the thorax and so get rid of the compression effects of the enlarged thymus. This operation has been performed with the object of reaching the thymus to effect its partial removal. The author's objection to this manoeuvre is that it is dangerous on account of the proximity of great vessels lying behind the upper end of the sternum, and is in itself a severe operation and accompanied by very profound shock. (3) Thymectomy is, in the opinion of the author, the only treatment of choice. He proceeds to discuss whether it shall be total or partial, subcapsular, or extracapsular. He quotes various authors, and concludes in favour of subtotal thymectomy on the ground mainly that it is congestive attacks which suddenly augment the volume of the thymus and determine the disturbances in the cervical venous circulation. Even a very partial thymectomy suppresses, or at least diminishes considerably, the venous repletion of the neck. Excision of a portion of the thymic tissue, the liberation of constriction of the cervical aponeurosis in the substernal space, brings about modifications in the space of Grawitz sufficient to prevent this accident. On the question as to whether the excision shall be subcapsular or extracapsular the author is in favour of the former operation. He points out that the thymus is a gland essentially mobile during respiration, moving 3 to 5 cm. This mobility has created around it a laxity of tissue. Therefore its subcapsular enucleation is used. In one of his observations the thymus, weighing 21 grams, enucleated itself almost spontaneously with each inspiration. The author then proceeds to discuss the operative technique of subtotal subcapsular thymectomy. The anaesthetic question is of importance. The author is of opinion that chloroform administered with more than the usual care is safest. At the same time he notes that ether preceded by scopolamine has been successfully employed, and also that the operation has been performed even without anaesthetic, but he thinks that it is not rational to refuse the patient the benefits of general anaesthesia. The skin is sterilized with iodine tincture. The body is in the dorsal position with the neck and upper part of the thorax thrown well forward. A median incision is made, 3 to 5 cm. long, beginning a little way above the suprasternal notch and terminating about 2 cm. below the upper edge of the sternum. The incision is carried through the various layers of cervical fascia until a grey mass is exposed which is seen to rise and fall with expiration and inspiration. The grey mass is covered by a distinct fibrous layer whose thickness varies. This is incised lightly, and through the incision the grey mass of the thymus is extruded or enucleates itself. This gland, which, anatomically speaking, is deeply placed, hidden in a retrosternal pouch, is surgically quite accessible. This complete enucleation is usually accomplished while the capsule is held fixed by forceps. The pedicle is ligatured with a thin catgut thread, but the haemorrhage is so slight that even this may not be necessary. After one lobe has been thus removed, preferably the left first, because it is generally higher placed; then attention is turned to the other—the right—and it is dealt with in exactly the same way. Both lobes can be removed with impunity. A cavity is now left, and to close it the subhyoid muscles are brought together with catgut sutures, and then the lower ends of the sterno-mastoids are also approximated. The wound is closed without drainage. The author proceeds to discuss the immediate and remote results of the operation. He points out that it appears to be a very severe operation in a patient frequently only 1 year old whose state of health was already sufficiently precarious, in so far that he had suffered numerous suffocation crises, but the invariable report immediately after the operation was that the child slept till evening, and generally cried for food, and had no vomiting. Surgeons who have removed the thymus have been certainly struck, as the author has been, with the very small amount of shock following the operation. Several reasons may be given for the success: the operation is short, fifteen minutes generally being sufficient time; there is little or no haemorrhage; the anaesthesia is not very profound. The author has investigated 42 published cases of thymectomy, 27 of which were successful, and 15 died. He has investigated the cause of death in the 15 cases, and finds that in 7 of them death was not due in any way to the operation of thymectomy. In 3 cases it was found that tracheotomy had been performed soon after the operation, on account of progressive dyspnoea. It is obvious, therefore, that tracheotomy should never be performed as a preliminary to thymec-

tomy. In some of the fatal cases also drainage had been used, with the result that infection of the cellular tissues took place. As regards the functional results of the operation, it was found that it had a most happy effect on the dyspnoea, and also suppressed completely the suffocation crises. As regards stridor, which accompanied the dyspnoea, it disappeared three times out of four after the operation. The operation of thymectomy, therefore, in the majority of cases causes the disappearance of all the functional symptoms of the affection. The children, generally poorly nourished before the operation, begin to grow rapidly after the operation, and very soon reach the same development as other children of their age.

### 39. The Radiography of Limbs in Plaster.

IN opening a discussion at the Société de Radiologie Médicale de Paris, Bouchacourt put forward the view, as a result of some experimental investigations, that the radiograph of a limb encased in plaster dressings was not appreciably less clear than that of an uncovered limb (*Bull. et mém.*, No. 32, 1912). Indeed, he found that sometimes the details were even more plainly visible when the radiograph was made through the dressings. In the first place, although the presence of a plaster might be expected naturally to mean an increase in opacity, this was compensated for by a better immobilization on the part of the patient. For example, when the plaster was in position there was an absence of those involuntary muscular contractions which were observed frequently in fractured limbs when unprotected. And, further, the plaster itself acted as a filtering medium, absorbing a very small quantity of the hard rays and a large quantity of the soft ones, thereby bringing about greater homogeneity in the radiation transmitted, and consequently greater clearness in the result. He had made special experiments with plaster of Paris in various forms and with other plasters, and although there were differences in relative transparency to the x rays, the obstacle did not appear to be nearly so great as was generally supposed. In a specimen radiograph there was shown to be little difference in the visibility of the osseous structure when fifteen or even thirty thicknesses of tarlatan with plaster surrounded the part. Bouchacourt also denied all serious importance to the quantity of moisture in the encasing medium, providing rays of sufficient penetrability were used. Little support for these opinions was forthcoming in the course of discussion, however, and there was a general feeling that the comparative radiographs of the uncovered parts were overexposed. Bouchacourt replied that he did not claim the minimum time of exposure to be irrespective of the presence of the plaster. But with rays marked 8-9 on the Benoist scale, which was the degree of hardness he employed throughout, if the exposure in the case of the uncovered limb were taken as 1, that of the plastered part need not be more than  $1\frac{1}{2}$ , and might be only  $1\frac{1}{3}$ . Altogether, he thought that the information which the radiographer could furnish in cases of fracture was much less limited than tradition affirmed.

## OBSTETRICS.

### 40. *Tabes and Pregnancy.*

FRUKINSHOLZ AND REMY (*Rev. méd. de l'est*, April 1st, 1912), reporting a case of tabes with pregnancy, comment that the association is very rare, but when it occurs it is easily overlooked. The published cases are not sufficiently numerous for conclusions to be drawn as to the effect of pregnancy on tabes, but nearly all authors consider it unfavourable; some even advocate the induction of abortion. On the other hand, Penkert thinks that tabes is uninfluenced by pregnancy, Theiss that its evolution is arrested by it, and Abadie and de Cardenal believe that the pains are ameliorated. In the case under consideration there was no appreciable effect on the evolution of the disease, but the symptoms appear to have been aggravated. Tabes seems to have no influence on pregnancy, such accidents as abortion and death of the fetus being attributable to the syphilitic taint which is the cause of the tabes. The essential interest of the association lies in the possible confusion between gastric crises and the intractable vomiting of pregnancy. Penkert observes that the possibility of tabes ought to be considered whenever, in the course of pregnancy, there are attacks of vomiting recurring periodically every two or three weeks; the present case had attacks of this type accompanied by haematemeses. The conclusion to be drawn is that whenever intractable

vomiting occurs in the course of pregnancy a careful examination of the nervous system ought to be made. Tabes may have the effect of abolishing the perception of fetal movements, an effect due to alteration in the sensibility of the abdominal wall and of the uterus. For the same reason the confinement of tabetics is sometimes painless. Some authors, on the contrary, consider that labour is rendered more difficult, but the examples cited do not carry conviction, except a case reported by Heitz in which paralysis of a vocal cord rendered expulsive efforts inefficient. The present patient, in spite of frequent uterine contractions, felt no pains and no desire to bear down; she perceived nothing of the passage of the fetus till just before delivery. The utero-vaginal insensibility is easily explained by the degeneration of the posterior nerve roots; that parturition is not painless in all tabetics is accounted for by the complexity of the centripetal fibres which are concerned in the formation of the hypogastric plexus. It is remarkable that in all the published cases the uterine contraction is normal even when the nervous lesions are very extensive. This observation is in accord with accepted views of the motor innervation of the uterus; the uterus conserves its contractility when all its medullary connexions are insulated, and even when certain of its sympathetic connexions are interrupted; the motor innervation of the uterus would probably be efficiently controlled by certain paracervical sympathetic ganglia which would act like the "motor ganglia of the heart and intestine." It is known that the sympathetic system does not necessarily escape in tabes, nevertheless the ganglion cells generally remain intact, and that is sufficient to account for the possibility of uterine action. In conclusion the writers refer to certain cases of "false confinement" in which non-gravid tabetics have attacks of pain resembling the pains of labour, so much so that one patient thought it necessary to seek the services of a midwife.

#### 41. Intrauterine Crying.

ALLARD (*Normandie médicale*) publishes a case of this very rare condition. After an unsuccessful application of forceps the writer was allowing his patient to rest, when he perceived cries, which were very distinct, though muffled, like the crying of a newly-born baby under the bedclothes. A woman who was holding the patient's right leg remarked that evidently the baby was growing weary, for he was crying, and almost at the same instant the mother asked anxiously, "What is that noise?" The husband, who was behind his wife, and the nurse who was looking after the patient's left leg also heard the sounds, which were repeated four or five times successively, and followed by a set of cries which could have been heard all over the room. The child was very vigorous, and violent movements could be felt through an abdominal wall which was relaxed by seven previous pregnancies; during the last three months the mother had suffered much from fetal movements. The child was eventually delivered with forceps, but could not be resuscitated, either because it had inspired liquor amnii or because of the compression of the head during extraction. Tarnier and Chantreuil, in the article on "Modifications of the Fetal Functions produced by Labour" (1888), mention intrauterine cries, but Velpeau used to say, "If I had heard them myself, I should not believe in them." Allard thinks that if Velpeau had been present at his case he would have been convinced, and he affirms that, however rare it may be, intrauterine crying may happen—because he heard it, because he is certain that no source of error was possible, and because he can invoke the evidence of four disinterested persons who were present at the confinement.

## GYNAECOLOGY.

#### 42. Treatment of Uterine Myoma by X Rays.

THE value of the treatment of uterine myomata by means of *x* rays is greatly detracted from by a want of exact indications. Ed. Falk (*Berl. klin. Woch.*, April 29th, 1912) gives the details of some cases in which this form of treatment failed, and after discussing the facts of the cases, deduces certain principles which he thinks will be of use in determining when *x* rays should be applied. As long as a myoma does not give rise to severe haemorrhage and other symptoms, no matter whether it is small or large, *x* rays should not be employed. It is, however, necessary to keep a careful watch over the rate of growth. Rapid growth is a contraindication for *x*-ray treatment. Such myomata should be dealt with by operation, even if heart

changes are ascertainable. Submucous myomata are also not suitable for *x* rays. Myomata which bleed profusely in young women should be subjected to operative treatment. Only under exceptional circumstances should *x* rays be employed. The object of applying *x* rays is to produce a premature climacteric by the action on the ovaries, but it is possible to retain the ovaries in operative treatment. *X* rays may be applied for myomata complicated with inflammatory conditions of the appendages, save when the inflammatory condition is severe. Great care should be exercised in these cases. The application of *x* rays for interstitial myomata in women of over 50 offers excellent chances of success, provided that no indication for an operation is present.

## THERAPEUTICS.

#### 43. Direct Insolation in Primary Tuberculosis of the Conjunctiva.

ROLLIER AND BORD (*Rev. méd. Suisse romande*, April 20th, 1912) record a case of primary tuberculous conjunctivitis cured by exposure to sunlight. This disease was first noticed by Koester in 1873, but it was not until 1884 that Parinaud established the diagnosis by demonstrating the presence of bacilli in the lesions. Primary tuberculosis due to direct inoculation from a tuberculous source is to be distinguished from secondary infection, whether that be due to an extension through the lacrymal ducts from the nasal mucous membrane, or to infection by the blood stream from distant lesions. The characteristic and distinctive symptom is the swelling of the cervical glands. These, according to Lagrange, are invariably affected in primary tuberculosis of the conjunctiva, but very rarely so in the secondary form. Four types of the disease may be noted: (1) Ulcerative with tuberculous granulations; (2) ulcerative with erosion of eyelids; (3) vegetative with polypoid growths; (4) vegetative with papillary growths. Of these, the last (which appears to correspond to the warty form of cutaneous tuberculosis) is the most important, and it is apt to be confused with tracheomatous or follicular conjunctivitis. The eyelids are slightly swollen, and on eversion the inner surface is seen to be covered with flat, sessile vegetations, pink at their edges, but usually grey or yellowish in their centre. There is little or no gummy discharge. The diagnosis will, of course, rest on the history, on the reaction to tuberculin, or on experimental inoculation. The condition is most frequently met with during childhood or adolescence. The actual injury causing the infection may be difficult to trace, an incubation period of several weeks usually preceding the appearance of symptoms. Prognosis, as in other tuberculous affections, is, to say the least, uncertain; the eyeball may become involved, or the disease may become general. Various rather drastic forms of treatment have been recommended, such as curetting the palpebral conjunctiva, cauterizing it with the thermo-cautery or nitrate of silver, freezing with ethyl chloride, or injecting with 0.2 per cent. formalin solution. During the last few years, Lundsgaard has treated 4 cases successfully at the Finsen Institute in Denmark, and, encouraged by this, the authors treated the case they describe by direct exposure to sunlight. The patient was a medical student who, at a *post-mortem* examination on a case of phthisis, had received a spurt of pus in the eye when opening a tuberculous cavity. Five weeks later conjunctivitis set in. This was treated by scraping and cauterization, and by the application of protargol and iodoform ointment, but no improvement resulted. On the patient's arrival at Leysin on January 13th, 1911, the treatment by direct insolation was at once begun. The eyelids were everted, and the swollen and granular tarsal conjunctiva was exposed for a few minutes to the sun's rays. This was done several times a day, and the sittings were gradually lengthened until they reached six exposures daily, each of ten minutes' duration. In three months the cure was almost complete, and the hard and greatly swollen cervical glands were much softer. At the end of nine months' treatment all trace of disease, except the scars of the cauterizations, had disappeared. There was never any photophobia or other ill effects from the exposure to the light. In fact, the authors confirm the observation of Lundsgaard that the mucous membranes in general tolerate the action of light, and respond to its curative effects far better than the skin does; and they maintain that the region of the eye proves, contrary to expectations, to be singularly amenable to treatment by sunlight.

**44. Extracts of Pituitary Gland.**

WIGGERS (*Amer. Journ. of Med. Sciences*, April, 1911) records his investigations upon the physiology of the pituitary gland and the action of its extracts. Developmentally and histologically composed of an anterior or epithelial portion and a posterior or neuroglial portion, the gland is necessary to life, and any diminution or increase in its function results in metabolic or sexual disturbances, its control over the body being exerted by an internal secretion elaborated by the cells of the anterior lobe. The chemical nature and physiological properties of this internal secretion are unknown, since it has so far resisted extraction by various solvents. The posterior lobe is not of vital importance like the anterior lobe, but it contains or secretes a substance which can be extracted by water, glycerine, or salt solution, and which resists boiling, but there is no evidence that it is identical with the secretion of the anterior lobe or that it represents its vital principle. It is the anterior lobe alone which influences growth, development, and life, but the extracted substance is found only in the posterior lobe, and is not present in the normal circulation, and its injection does not neutralize the symptoms arising from extirpation of the gland, though in large doses it produces symptoms simulating them. These extracts cause a marked rise of arterial blood pressure by constricting the peripheral vessels, probably by direct muscular action, but the renal vessels dilate during its action. It is only in this property of raising the blood pressure that these extracts resemble the action of adrenalin, for their effects upon the heart and blood vessels are entirely different. The secretion of the urine is increased, but the flow of pancreatic juice is inhibited, yet whether these varied reactions are due to separate substances or to a specific affinity of a single substance for different cells, or are secondary to changes in the circulation, has not yet been determined.

**45. Action of Phenolphthalein, Scammonium, and other Purgative Substances.**

A RADIOLOGICAL study of the action of certain purgative substances on the intestines has been undertaken by Lebon and Aubourg. In a communication to the Société de Radiologie Médicale de Paris (*Bull. et mém.*, No. 31, 1912) they state that phenolphthalein undoubtedly has a direct influence upon the muscular fibres of the large intestine. A rapid and abundant purgative action was noted after the feeble dose of 0.40 cg. in a litre of bismuth water, given as a lavement. The action of phenolphthalein in minute doses was, indeed, precisely like that of scammonium and jalap taken in small quantities. It was concentrated almost entirely upon the intestinal musculature, and although it was possible that with higher doses the glandular secretion might be altered, the authors had not been able to demonstrate it with the doses they had employed. The intestinal picture when phenolphthalein had been given closely resembled that obtained after the ingestion of a cachet enclosing 0.30 gram of scammonium powder. The same contractions of the small intestine were visible, and there was the same dispersion of the intestinal contents. With  $\frac{1}{2}$  gram of scammonium powder the contractions became feeble in the initial part of the ileum, and almost non-existent at the terminal part. The intestine appeared also to enclose a larger quantity of fluid than that which had been introduced, and this was again evident when the dose was raised to 1 gram. Such a high dose rarely gave any appreciable contraction of the small intestine. The contractions under such circumstances were much the same as those observed when the intestine was filled with a simple bismuth meal. This decline in the purgative action with the increase of the dose was to be explained by the fact that scammonium only became purgative in the presence of the alkaline fluids of the intestine. Administered in large quantities, it did not find sufficient fluid to enable it to fulfil its function, but in small doses, as the radiological examination proved, the peristaltic contractions were excited without any noteworthy hypersecretion of the pancreas, liver, or intestinal glands. The powder of jalap, to the dose of 1 gram, certainly increased the liquid contents of the intestine, while augmenting the intensity of the peristaltic movements to a much smaller degree than was generally imagined. Radiology, therefore, demonstrated that scammonium and jalap, generally classified as drastic and nervo-muscular, were also hydragogue purgatives. The authors were unable to say whether the hypercrinia of the intestine was simple or catarrhal. The absorption of a bismuth meal (250 c.cm. of pure water and 100 grams of bismuth) in which 30 grams of sodium sulphate had been dissolved, rapidly brought about a disproportionate increase in the fluid without acting on the contractions.

**46. Treatment of Haemorrhage in Gastric Ulcer.**

LOEPER (*Progrès méd.*, No. 50) writes: Complete rest, a little ice internally, much ice to the abdomen, lavage with hot water twice every twenty-four hours, are very useful remedies, but they must be used in conjunction with drugs. By mouth the three drugs to be given are adrenalin, calcium chloride, and gelatine. The sole disadvantage of adrenalin is that its constrictive action may be followed by dangerous vaso-dilatation; it should be given in fractional doses of  $\frac{1}{4}$  mg., combined with syrup of thebaine and lime water, at three-hourly intervals. Thus the action is continuous, and secondary vaso-dilatation is less likely to occur. Adrenalin is superior to ergotin and ergotinin, which stimulate unstriped muscle, and to rhatany and tannin, whose action in abundant haemorrhage is quite hypothetical. Calcium chloride is an excellent drug, acting in the stomach by facilitating clotting and in the organism by increasing coagulability; it may be combined with adrenalin and other drugs, such as rhatany, belladonna, and codeine. The haemostatic properties of gelatine have been urged by Carnot for the last ten years; it is given in doses of from 5 to 15 grams a day in water, and may be combined with calcium chloride. In addition to these drugs by the mouth, it may be necessary to give hypodermically ergotin, ergotinin, adrenalin, or even extract of mistletoe (0.10 to 0.20 cg.), of which the hypotensive and haemostatic properties have recently been demonstrated. The action of these products is rapid, but rarely lasting. Certain serums, such as gelatine serum and fresh horse serum, have a more complete and lasting effect because they act on the coagulability of the blood and not on the vessels. Gelatine serum is prepared by mixing 10 grams of sterilized gelatine with 1 litre of physiological serum. The dose is 50 to 100 c.cm. Horse serum is especially useful in ulcers which bleed for a long time and are accompanied by appreciable blood modifications, such as modification of coagulation and the appearance of haemolysin. Artificial saline serum is indicated in serious and abundant haemorrhage; it acts as a "substitute," relieves thirst, and promotes diuresis.

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**PATHOLOGY.**

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**47. Crossed Cerebellar Atrophy in the Adult.**

ANDRÉ-THOMAS AND KONONOVA (*Revue Neurologique*, March 15th, 1912) describe 4 cases of hemiplegia in persons aged respectively 26, 39, 43, and 77 years, in which a crossed atrophy of the cerebellum was found. The cerebral lesions were considerable; in three cases there were areas of softening in the cortical and subcortical region, which had destroyed a large part of the central and neighbouring convolutions, with a portion of the adjoining white matter. The nucleus lentiforme was affected, but the thalamus opticus was intact. There was secondary degeneration of the capsula interna, and of the cerebral peduncles, excepting the fibres lying most internally. There was also atrophy of the subst. retic. tegmenti, and including the red nucleus. In the fourth case there was destruction of the white matter under the third convolution, and the ascending frontal and parietal. Degeneration of the capsula interna was very marked in the anterior half of the posterior segment, and of the cerebral peduncles in the region of the second, third, and fifth nuclei. The thalamus was considerably atrophied, and contained a minute cavity. In all the cases there was a crossed atrophy of the cerebellum, limited exclusively to the hemispheres, the vermis remaining intact. All the lobes were atrophied, but the lob. quad. ant. and post. in the highest degree. The pedunculi cerebel. sup. and med. were atrophied through their whole length. The writers draw attention to the fact that the limitation of the crossed atrophy to the hemispheres shows once again that there are two distinct parts in the cerebellum—namely, the hemispheres which stand in relation to the cerebrum and develop with it, and the vermis which stands in relation to the bulbus and cord. The predominance of the atrophy of the cortex in the quadrilateral lobe is not less interesting, inasmuch as this lobe only attains its full development in the higher vertebrates. It is interesting to compare the results of the destruction of the quadrilateral lobe in the ape to the atrophy of the same region in man, following primary lesions of the motor tract. Like the pyramidal tract, with which it has very intimate associations, the quadrilateral lobe develops in proportion as the differentiation of movements becomes more and more accentuated.