AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

311. Hysterical Insanity.

RAECKE says that hysteria is built up on purely psychical bases. There is an alteration of the mental standpoint, such as inequality of temper, with irritability, abnormally-developed capability of being influenced by the chances of life, inclination to act impulsively and to translate mental processes into bodily disturbances, increase of the fancy, so that the patient becomes untruthful; inconsistency of thought, combined with a faulty interpretation and unreliable memory; an unlimited egotism; a desire to play an important part in life at all costs; a predilection toward intrigue and gossip; mistrust; a desire for revenge; and childlike obstinacy (*Berl. klin. Woch.*, March 11th, 1907). While these qualities all go to make up the hysterical character, one must realize that not every hysteric possesses all of the qualities. Hysteria may lead to transitory psychoses, which depend solely on the primary hysteria, and yet are not so mild that the term "insanity" ought not to be applied to them. First, Raecke mentions those forms of simple hysterical insanity which give the impression of psychical paroxysms by their sudden onset and rapid course to improvement, and which mostly begin with a fit. *Furor hystericus* is a maniacal condition, and is often induced by a disturbance of mood or by excess in alcohol. The patient is seized with sudden violent mania, sometimes after an initial convulsive attack, and shouts, beats, kicks, and bites at all objects in the neighbourhood. The face is drawn, is sometimes pale, and sometimes dark red, and is often covered with sweat. No words or acts can influence the patient's condition. When left alone the period of excitement rapidly gives place to a period of exhaustion, and the patient either falls to sleep or becomes tearful and mild. In a few cases a second fit ends the attack. When feelings of fear and oppression are prominent during the excitable stage, one can speak of *raptus hystericus*. This form is characterized by a markedly theatrical attitude, but the effect of the mental process is rarely a deep one, and one never meets with serious suicidal attempts. When the excitable stage is characterized by childish behaviour and silly misdeeds, one may call the condition *moria*. In some cases there are hallucinations and illusions, which appear suddenly and which mostly have a terrifying character. This is often associated with attacks of paranoic madness, the patient applying the hallucinations or phantasy pictures to himself or herself, and this may lead to impulsion and impulsive actions. While these disturbances are mostly of short duration, they may last for some weeks, and there may be periods of delirium and of conditions of sleep and slumbering. The delirium is characterized by very lively falsifications of scenes, combined with hallucinations for all senses. These may deal with past experiences or with the remembrance of something which the patient has heard or read about. There may be ideas of ecstatic rapture. At times they believe themselves to be other persons or even animals (transformation delirium). Hysterical lethargy is a condition of hysterical stupor, and not of proper sleep. The patients may keep in one position or fall limp to the ground, and are generally unaffected by external stimuli. The pulse is rapid, and the respiration is both rapid and superficial. The pupils are not dilated, as in ordinary sleep. Uncomfortable positions, etc., are mostly slowly and almost imperceptibly changed, and the patients do not pass urine or faeces under them, but use a bedpan when this is applied. At times they awaken for meals regularly, pass urine, etc., and then fall "asleep" again. The slumbering conditions are like the lethargic conditions. The patient remains in complete control of his limbs, can speak and even carry out complicated actions, but appears to be living in a sort of automatic existence. The expression is lost, the eyes look into distance, the walk is slow, co-ordinated but purposeless movements are carried out, but no notice is taken of the surroundings. In mild cases, questions may be answered in a dreamy sort of way, mostly quite wrong, but yet with some sort of associative connexion to the question. This complex is spoken of as "speaking past the point" (*Vorbeireden*). Mostly, however, one cannot get the patient to react to questions at all. At times, during the condition of slumbering, a one-sided prominence of certain complexes of impression may lead to the appearance of a second personality. In this way the "double ego" may be produced. Raecke cites two cases, both in males, which exemplify the condition of hysterical slumbering. In speaking of the prognosis, he states that cure always follows, but the duration of the attack is very variable. The diagnosis must be built up partly by considering the past history and antecedents and by testing the patient for hysterical character. One must not lay much weight, however, on the detection of bodily disturbances, such as functional paralyses, etc., after the psychosis has broken out, and one should always bear in mind that hysterics may be attacked by other forms of psychoses, especially katatonic demented processes. In dealing with criminals, one must be careful not to confuse simulation or exaggeration with "speaking past the point." The treatment consists in doing as little as possible. Isolation from relatives, rest, and monotonous life, combined with occasional suggestion, often leads to rapid results.

312. Diffuse Dilatation of the Oesophagus without Anatomical Stenosis.

LERCHE (*Amer. Journ. of Med. Sci.*, October, 1907) discusses the condition of diffuse dilatation of the oesophagus without anatomical stenosis, and reports a case due to chronic cardiospasm—that is, a pathological exaggeration of a physiological phenomenon in which. through an abnormal innervation of the cardia, a habitual spastic closure occurs, especially after deglutition. The etiology of such a dilatation is doubtful, but from cases previously reported it would appear that those cases in which atony of the muscular wall is primary to the dilatation and spasm should be differentiated from those in which the cardiospasm is the primary factor. The case observed was that of a man, aged 27, with good previous history. During an attack of sore throat and swollen tonsils ten years previously he choked while at dinner, and was not relieved until the food came back. Since then he has had difficulty in getting the food into the stomach. After having eaten about a quarter of his meal he experiences a choking sensation, and has to drink water copiously to force the food down. This has to be repeated three or four times during each meal. At times all the food and water returns, and he is unable to swallow. The condition is aggravated if he gets out of health or is worried. On examination a spasm of the upper end of the oesophagus was noticed, and another at the cardia, requiring the use of a wire stylet in the stomach tube to overcome it. In order to differentiate between a dilatation and a deep-seated diverticulum an ordinary stomach tube was passed into the stomach and 750 c.cm. of water poured in. With the tube still *in situ* the patient was given 250 c.cm. of milk to drink. On allowing the water to flow off from the stomach it was found to be clear, and the tube was then pulled up into the oesophagus and the milk siphoned off. In order to determine the amount of dilatation a stomach tube with a silk bag attached was introduced and the bag filled with water, different sized bags being tried, until one with a diameter of 5 cm. when distended was found to be capable of only slight movement up and down. The diagnosis of diffuse dilatation, due to cardiospasm and oesophagospasm. was based upon the sudden onset with regurgitation of food and fluids; the fact that the difficulty of passing food into the stomach varied considerably at times; the sudden relaxation of the cardia on gentle pressure; and the result of sounding with the pear-shaped rubber-silk sound. The history and symptoms of the case excluded the possibility of either malignant or benign stricture, and the results of the Rumpel test excluded a diverticulum, primary atony being excluded by the regurgitation of fluids from the outset, the sudden onset, and the promptness with which the oesophageal contents could be ejected. Although the prognosis has been considered grave, the results of over-stretching the cardia have been promising, and for this purpose the author has constructed an apparatus for dilating the cardia with a gradually-increasing pressure, thereby reducing the danger attending the use of bougies. Another case is quoted pointing to a congenital origin, but it is difficult to differentiate a congenital from an acquired dilatation unless an early oesophagoscopic examination can be made.

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313. Diazo Reaction in Pulmonary Tuberculosis.

Ideas as to the prognostic value of Ehrlich's diazo reaction of the urine in cases of pulmonary tuberculosis are still somewhat at variance. Some, including Michaelis, consider that its presence indicates that the disease will pursue a rapid course; others think that the reaction is of no value in the prognosis of pulmonary phthisis. Dimitrenko (*Journ. des Prat.*, July 14th, 1906) has investigated the presence or absence of this reaction in 300 cases of pulmonary tuberculosis. He finds that the reaction is very rarely found at the onset of pulmonary phthisis. In 10 per cent. of his cases it was entirely absent, and in some of the cases in which it was present it would now and then disappear for several days together without there being any obvious reason for this disappearance. The reaction is never so constantly found in tuberculosis of the lungs as it is in enteric fever. The author concludes that it is only in those cases in which the reaction is well marked and permanent that one can speak of the gravity of the state of the patient from the presence of this reaction.

SURGERY.

314. Diagnosis of Congenital Dislocation of the Hip.

J. Privat (*Journ. des Prat.*, October 20th, 1906) gives briefly the signs by which one may suspect congenital dislocation of the hip in a child, and finally describes the methods which should be employed to verify the diagnosis and to estimate the prospects of success by suitable treatment. When the dislocation is a double one, the walk of the patient is almost pathognomonic of the condition. The child limps, but there is no associated painful limping; the step is free and normal, and the foot is carried resolutely forward. In a double dislocation the height of the body at each step is inclined abruptly to the side of the leg which rests on the ground; it seems as if the support on which the patient proposes to rest is suddenly drawn away, so that the trunk sinks; the gait, therefore, resembles very closely the "waddle" of a duck. When unilateral, this limping character is similar but one-sided. A marked lumbar lordosis is present; the waist appears shortened, and the pelvis seems enlarged from the projection of the trochanters. To verify the diagnosis of a congenital dislocation of the hip one must demonstrate the absence of the femoral head from the acetabulum; to do this one may either employ the *x* rays or demonstrate the condition clinically and in the following way: With the child lying flat on its back, one grasps the lower end of the femur with the right hand and imparts to the limb movements of flexion and extension and rotation; with the other hand one seizes the upper extremity of the femur, and recognizes in turn the outermost projection (the great trochanter), and internal to this the femoral neck, and still more internal the femoral head. If there be no dislocation, the head of the femur will be felt with difficulty, and on hyperextending and externally rotating the thigh a prominence (the head of the bone) will be seen in Scarpa's triangle. If a dislocation be present the head of the femur can be plainly felt, and at the place where the head of the bone should normally be one finds an emptiness. This demonstration of a mobile femoral head outside its normal position, together with the absence of previous symptoms of disease or injury, is sufficient to differentiate the condition from traumatic dislocation or hip disease. The head of the femur in congenital hip dislocation may be either below the level of the anterior superior spine of the ilium, on its level, or well above it; in the first case reduction will be easily effected, in the second with more difficulty, and in the last with still greater difficulty. Further, reduction is easier when the head of the femur is in front of the acetabular cavity than when it is behind it. In a few cases the femoral head is situated above the normal position, but is not freely movable; in these cases the head of the bone has formed a new acetabulum for itself; these cases differ from the ordinary forms of congenital dislocation in the fact that walking causes pain; reduction also is difficult in these cases.

315. Primary Tuberculosis of the Breast.

Zironi (*Rif. Med.*, April 20th, 1907) reports a case of primary tuberculosis of the breast occurring in a young woman aged 23. The symptoms were first noticed two years ago, the breast and axilla were cleared out in February, 1905, and there has been no recurrence or development of tubercle elsewhere since the operation. Of the three chief roads of infection (the blood, the lymphatics, and the milk ducts) in the author's case it was via the blood that infection took place. Pregnancy or lactation may act as predisposing causes, but the more important is the tuberculous tendency. Mammary tuberculosis may develop as disseminated nodules, as a confluent mass or in the miliary form which is always associated with miliary tuberculosis elsewhere. In the two former cases the eventual issue is the formation of an abscess and troublesome sinuses. In diagnosis the chief points to bear in mind are the early age of the patient, the associations with tubercle elsewhere or in the family, the long duration of the disease, the comparative absence of pain and non-affection of the skin (before breaking down occurs) and the presence of enlarged lymphatics and glands in the axilla. The prognosis, as in most tuberculous affections, should be reserved—in itself it is not dangerous to life. As regards treatment, the author recommends complete removal of the breast and axillary contents.

316. Annular Gastrectomy.

Leriche (*Arch. Prov. de Chir.*, No. 3, 1907) discusses the indications, technique, and results of the somewhat exceptional operation of annular resection of the median portion of the stomach. This procedure of partial gastrectomy has been practised in a few cases of gastric ulcer, of hour-glass contraction, and of cancer. The author points out that it is rarely applicable to ulcer, which does not often involve both the anterior and posterior walls of the stomach, and which, as a rule, can be effectually treated by simple excision. If, however, the ulcer, extending from the lesser curvature, has spread over portions of both walls, then, notwithstanding the probable presence of firm gastric adhesions, annular resection, it is held, should be preferred to cuneiform excision of the ulcer or to gastro-enterostomy. In hour-glass contraction, which in most instances is a result or a complication of gastric ulcer, partial gastrectomy is held to be indicated when the contraction is situated in or near the median line, when active ulceration is still going on, when the stomach is freely movable, and when there is no pyloric stenosis. This operation, if found anatomically possible, is regarded as preferable to both gastro-anastomosis and to gastro-enterostomy, as a more radical method, and as one that in the actual conditions of intervention is certainly not more dangerous. Although median gastrectomy cannot as a rule be regarded as a suitable operation for cancer, by reason of the necessity in such cases of practising a much more radical method, it ought not, the author thinks, to be rigorously excluded from the therapeutics of malignant disease of the stomach. In certain exceptional instances it may be found an excellent and legitimate operation, and in cases reported by Roux and Hoeberlein it has given marvellous results. It is, the author holds, the operation of choice for tumours localized in the walls of the central portion of the stomach, which need removal, not because they are setting up obstruction but because they are malignant. It is, of course, contraindicated when the growth is found to be extensive and when the glands of the small omentum are enlarged. In a full description of the technique of median annular gastrectomy Leriche points out suitable means of overcoming the chief difficulties of the operation, which are caused by restricted mobility of the margins of the divided posterior wall of the stomach and by unequal calibre of the two gastric segments.

OBSTETRICS.

317. Occipito-posterior Presentations.

D. Hardie (*Journ. of Obstet. and Gyn. of the Brit. Emp.*, September, 1907) describes the methods of treatment which he has found most useful in dealing with occipito-posterior presentations. Rotation by external manipulation would be an ideal treatment if the diagnosis could be made with certainty at the beginning of labour before the membranes had ruptured, but these conditions will not often be met with in practice. When the head has entered the brim, the membranes being entire, the only treatment is the postural treatment, the patient being directed to lie on her right or left side, according as the occiput is to the right or to the left. The time of active interference comes, if at all, when labour has well advanced into the second stage. At this period pressure upon the sinciput may be made in order to encourage flexion and cause the occiput to occupy a lower plane in the pelvis. The pressure is made with one or two fingers, and is begun before a pain (when the position of the head can be more easily altered) and continued throughout the pain, in order to prevent the

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head slipping back into its original position. This method often succeeds after a short time, but unless it is definitely useful, it should not be persisted in for more than half an hour. Where the measures described have failed the author strongly recommends rotation by hand. The process is somewhat different, according as the head is only fairly advanced or is bearing on the perineum. (*a*) When labour is only fairly advanced and progress is distinctly retarded. The patient is anaesthetized and placed on her left side. In the case of a right occipito posterior presentation the right hand with its back looking upwards is introduced into the vagina, the fingers are passed along the upper surface of the head nearer the sinciput than the occiput and the thumb placed over the lower temple; the head is thus gripped and is flexed and rotated so as to occupy the left oblique diameter with the occiput in front. Forceps are now applied, the lower blade being introduced while the right hand is still in position. There is no danger of injury to the child from the rotation of the head, which is altogether only through three-eighths of a circle, and in practice it is found that the body rotates with the head. In the case of a left occipito-posterior presentation either the right or left hand may be employed. If the right hand is used, it grips chiefly the sinciput and sweeps round the arch of the pubes, from left to right of the patient, the upper blade of the forceps being the first to be applied; if the left hand is used, it grips the occiput and sweeps round in front of the perineum from right to left of the patient, the lower blade being the first to be applied. (*b*) When the head is on the perineum. The process is essentially the same, but it is not in this case necessary to pass the whole hand into the vagina, and flexion may be aided by pressure on the sinciput with the left hand. The author has employed the treatment above described in cases of occipito-posterior presentation for some years, and finds that no other treatment can compare with it in efficiency and safety.

318. Quinine in Obstetrics.

MAURER (*Gaz. Hebd. des Sci. Méd.*, October 20th, 1907) advocates the use of quinine to increase uterine contractions during labour, and even sometimes to set them going. He has found it particularly useful in cases where the membranes have ruptured prematurely, and the contractions are absent or feeble; and he has employed it also in the induction of premature labour and in the treatment of abortion. He has not found any injurious effect on either mother or child from its use, the ringing in the ears observed in some of the cases soon passing off. He administers 1 gram by the mouth in a cachet, giving half the quantity one hour after and again in half an hour if required. He has not found it of any use to exceed 2 grams, and it has generally answered very well to give it by the mouth, although in some cases he has had recourse to subcutaneous injection. He has never known it to fail.

GYNAECOLOGY.

319. Local Treatment of Peritonitis by Alcohol.

FROM time immemorial alcoholic stimulants have been prescribed, or taken by the patient without being prescribed, as a remedy in septic infection, peritonitis included. It appears that in Bucharest alcohol mixed with saline solution is poured into the peritoneal cavity as a therapeutic measure in septic cases (Report of Articles on Obstetrics and Gynaecology published in Roumania in 1906, *Monatsschr. f. Geb. u. Gyn.*, October, 1907, Abstract No. 23, p. 574). Constantinescu claims the best results in a case of general suppurative peritonitis of uncertain origin, and in a second where that complication followed supravaginal hysterectomy for uterine fibroid. In both instances the peritoneal cavity was flushed out with artificial serum. Then 500 grams more of the fluid containing 5 per cent. of rectified alcohol was poured into the peritoneum, and left there when the abdominal wound was closed. Both cases recovered, and Constantinescu attributes the satisfactory result to antiseptic action exerted by the alcohol in solution. The focus of infection was probably destroyed otherwise than by the alcohol.

320. Do Ovarian Dermoids become Cancerous?

GORISOUTOFF (*Zentralbl. f. Gynäk.*, No. 45, 1907) is of opinion, after considering a case under his own care, that primary cancer may develop in a common ovarian dermoid. His patient was a virgin, aged 45; the menopause had been completed two years previously. She had noticed for two months a swelling of the size of a fist in the hypogastrium, which caused dysuria and constipation. It proved to be an intraligamentary tumour of the left ovary, which was successfully removed. The tumour was a dermoid, and bore a distinctly cancerous area, with flat cells derived from the stratified epithelium of the dermoid tissue. The patient, as is usually the case after ovariotomy for dermoid, recovered speedily from the operation. Two months later infiltration in the left half of the pelvis was detected, and it spread until the death of the patient within six months. No necropsy, however, is reported. Gorisoutoff states that over twenty cases of primary cancer of ovarian dermoids, which he considers authentic, have been published.

THERAPEUTICS.

321. Treatment of Neuralgia.

DR. SCHULTZE (*Zeit. für Phys. und Diät. Therap.*, May, 1907) reviews the different methods of treatment available for neuralgia. Amongst drugs which often give relief in recent cases he mentions the salicyl preparations, especially aspirin and novaspirin, and the other so-called antineuralgics, from quinine to pyramidon. When these fail arsenic may be tried, or aconitine, which Barber has found useful given in doses of 1 decimilligram three times a day. Strychnine in large doses has also been recommended, and in many cases of trigeminal neuralgia and of sciatica aperients do good service. Amongst physical methods Schultze values least massage, which he has found to be of no use in severe cases. Electricity, especially the weak galvanic current, is more effectual than massage. The author saw one case of trigeminal neuralgia of long duration and most severe type in which the pain almost disappeared after the use of the galvanic current. While this one case may have been accidental, it cannot be denied that electricity in some cases gives relief. The application of heat has been tried in many forms. Bier makes use of it, especially in the form of the hot-air douche, the heat being such as to cause a burn of the first degree, and he had had success in some cases of severe trigeminal neuralgia sent to him for operation; where this method fails the failure may depend on some special cause, as, for instance, the presence of arterio-sclerosis or of deeply-seated nervous condition. The author has had considerable success in the treatment of sciatica by warm sand baths. As well as dry heat, all sorts of warm baths have been used, and Brieger especially recommends the Scottish douche, which, however, Schultze has not found as useful as the hot sand baths. Another method which undoubtedly affords relief is nerve-stretching by the bloodless method. The simplest way of carrying it out in cases of sciatica is Lasègue's method of flexing the extended lower limb upon the pelvis from the ankle-joint. Goldsheider has invented a special kind of seat in which exercises can be carried out for stretching the nerve. Hartmann for the same purpose fixes the lower extremity and bends the patient's body forwards. On the other hand, rest is strongly recommended for cases of sciatica, and Weir Mitchell puts the leg up in splints. The author considers the right principle to be to start the movements as soon as the pain begins to yield to the treatment by rest or to treatment on other lines. A more modern treatment is by perineural injections or injections into the nerve substance. Amongst the different substances which have been used for injection since the method came into vogue are morphine, atropine, strychnine, aconitine, curare, ergotine, gall solution, silver nitrate, tincture of iodine, alcohol, ether, chloroform, methylene blue, water, carbolic acid, antipyrin, cocaine, and eucaine. In trigeminal neuralgia Schlösser has used alcohol injections with specially constructed cannula introduced high up; he has had good but not permanent success in a large proportion of 68 cases of severe neuralgia, and relapses can receive renewed treatment on the same lines. In one case of sciatica which came under the author's observation which had been treated on these principles, a circumscribed area of painful inflammation had remained after the injection. If alcohol be injected into the nerve substance or close to it, it causes degeneration of the nerve; thus the injection may be looked upon as a form of medical resection, which must be used with caution in the case of mixed nerves. Küster recommends the injection of 5 per cent. cocaine solution, and claims that about eight injections should bring about recovery, but cases have been reported in which such injections have caused severe

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collapse symptoms. Lange uses for injection a solution of 1 per cent. β-eucaine in a salt solution of 8 per 1,000, and differs from earlier writers in that he uses large quantities of fluid, up to 70 or 100 c.cm. in cases of sciatica; he has reported on 8 cases, with complete success in 5. Umber dispenses with the eucaine, and uses still greater quantities of salt solution, up to 170 c.cm. In 4 cases of sciatica of long standing he obtained freedom from pain after two days, but he does not say whether relapses occurred. The author has used the method in 2 cases, but with no special success. Krause substituted for β-eucaine stovaine and adrenalin, and reported prompt improvement in 5 cases of rheumatic sciatica, and an excellent result in 1 case of trigeminal neuralgia. When all such methods have proved useless there remains surgical treatment. The author describes the different operations which may be undertaken; none of them are certain in their results, while some of them are of considerable danger, and therefore the greatest efforts should be made to render operations superfluous by further development of our knowledge of the pathology of the disease, and of the physical methods and injection methods of dealing with it.

322. The Action of Priessnitz's Application.

H. Schade (*Muench. med. Woch.*, April 30th, 1907) discusses the action of the Priessnitz application of cold water on a linen bandage, covered with a layer of some protective tissue, for inflammatory conditions. He maintains that a satisfactory explanation of the action has not yet been given, and he attempts to supply this want by dealing with the matter from the point of view of the osmotic pressure of the tissues and tissue fluids. The osmotic pressure of a solution may be said to be the pressure which the dissolved substances exert on the molecular surface of the fluid in the endeavour to increase the latter. This pressure may be very considerable. The osmotic pressure of human blood and serum during health is constant, and equals from 7.5 to 7.9 atmospheres. This may be expressed in another way by stating the lowering of the freezing point of the solution. Serum has a freezing-point depression of 0.55° to 0.57° C., and this is usually indicated by the Greek symbol Δ. The endeavour on the part of the body to keep this pressure at a constant level is spoken of as the isotonic balance of the blood and the tissues. In inflammatory conditions the osmotic pressure becomes changed, and the isotonic balance is lost. In order to understand the conditions affecting an inflamed area, it is necessary to analyse a simple condition such as a boil. The central pustule has an abnormally high osmotic pressure, ranging between 0.6° and 0.8° C., and may even reach as much as 1.4° C. Passing outwards, one next comes to the hyperaemic zone, in which the pressure is still too high, but is increasingly lower the farther distant it is from the central pustule. Outside this is the area of manifest oedema, which has a pressure varying from about 0.75° C. close to the hyperaemic zone to 0.56°, which is the normal pressure of healthy tissue. The importance of this change in pressure is grasped when one learns that the volume of a cell diminishes as the osmotic extension of the fluid in which the cell is suspended is raised above that of the cell itself. Thus a red cell loses about one-quarter of its volume when suspended in 1.5 per cent. sodium chloride solution ($\Delta = -0.9°$ C.), as compared with the cell suspended in 0.9 per cent. sodium chloride solution ($\Delta = -0.56°$ C.). Next, as is well known, the structure of a cell is materially altered by suspension in a fluid of a higher osmotic pressure than that of the cell itself. Red cells lose their disc shape and become spherical when kept in 1.5 per cent. sodium chloride solution. In correspondence with this, the function of the cell suffers as soon as the isotonic balance is lost. This can be measured by watching the phagocytosis of leucocytes, suspended in saline solution of varying strengths. Turning to the physiological and clinical side of the question, the author finds that when the osmotic pressure is raised a damage is inflicted on the tissues, and this results in an inflammatory reaction. The injection of isotonic solutions is tolerated by the tissues without disturbance, but when the solutions are hyperisotonic, pain is always produced. This, of course, applies only to solutions of substances which are non-escharotic or which do not attack the tissues chemically. In cold tuberculous abscess the osmotic pressure is not raised, but the inflammatory signs are altered; there is little or no pain and no oedema. From these considerations he comes to the conclusion that osmotic pressure of the tissue fluids plays an important part in the process of inflammation. The Priessnitz application causes a reactive hyperaemia, and thus tends to re-establish the balance of the osmotic pressure. He does not consider that the poultice acts beneficially or otherwise on the area of hyperaemia—that is, on the pustule itself; but, when it covers the oedematous zone, it converts the local anaemia into a local hyperaemia. The result of this increased circulation through this zone is to heighten the lymph circulation centrifugally, thus getting rid of the products of inflammation rapidly, or rendering them harmless by neutralization with the various substances in the serum or lymph. In testing the various forms of water applications, he found that hot fomentations, which only just cover the highly-inflamed area, rather tend to increase the pain; that hot fomentations which cover the whole of the affected area widely allay the pain rapidly; that hot fomentations which cover a ring around the central pustule, leaving this part uncovered, also allay pain rapidly. In conclusion he surveys the action of the cold-water applications in various situations, and states that he believes that the action on the osmotic pressure is an important one, although he considers that other factors also come into play.

323. Treatment of Acute Mercurial Poisoning.

Salvatani (*Rif. Med.*, July 13th, 1907) points out that the toxic action of mercury depends largely on the degree of concentration of the mercurial ions, and the more effectually this concentration can be lessened the more efficacious will be the antidotes employed. From certain experiments carried out by the author (by endovenous injections in animals) it was found that the power to lessen this concentration was least marked in chloride of sodium and more marked in the following drugs in ascending degree—bromide, iodide, sulphide, and hyposulphite of sodium (thiosulphate). In treatment he distinguishes an external (including treatment by the stomach) and an internal antidotism, the latter being applied to the drug after absorption. By external antidotes we try to immobilize chemically and pharmacologically the ions of mercury not yet absorbed; by internal antidotes we try to lessen the concentration of the ions until the poison can be eliminated from the system. As external antidotes albumen is good, but H_2S and the sulphites are better, as they hinder absorption, lessen the corrosive action, and diminish the local toxic action. The hyposulphite should not be used where there is danger of general poisoning, but for small doses (for example, where a strong mercurial solution has got into the eye) it should be very useful. As an internal antidote the hyposulphite of soda and H_2S are recommended. The hyposulphite should not be given by the mouth, but only endovenously or hypodermically; the H_2S may be given in the form of enemata, inhalations, or by the mouth. When one can feel sure that all the mercury has been absorbed from the intestinal canal, hyposulphite of soda may be given by the mouth.

PATHOLOGY.

324. Case of Triorchiditism.

Potarca (*Sem. Méd.*, May 8th, 1907) reports the following case of supernumerary testicle. The patient, a soldier aged 21, came under the author's care to be operated on for a left hydrocele. According to the patient's account the left side of his scrotum had always been much larger than the right and contained two glands, each of which was much smaller than the normal right testicle. On examination there was found marked fluctuation in the tunica vaginalis of the left side, and here were also to be detected two small mobile masses similar in shape and size, and united by a double cord, which passed upwards towards the external orifice of the corresponding inguinal canal. Both masses were of the same consistence, and were somewhat more sensitive to pressure than was the right testicle. Under local anaesthesia the hydrocele was opened, giving exit to some citron-coloured liquid, and it was then seen that the two small masses, each about the size of a pigeon's egg, were really two testicles. Two spermatic cords with two vasa deferentia could be traced into the left inguinal canal, and a double serous membrane enclosed the two glands with their cords. No trace of epididymis could be found in either of these rudimentary glands, but at the lower borders of each were to be seen two small excrescences, each the size of a lentil. The vasa deferentia of these glands were almost natural in size. The parietal wall of the left tunica vaginalis ended blindly at the external orifice of the left inguinal canal.

Br Med J: first published as 10.1136/bmj.2.2450.E89 on 14 December 1907. Downloaded from http://www.bmj.com/ on 19 April 2024 by guest. Protected by copyright.