

# EPITOME OF CURRENT MEDICAL LITERATURE

## Medicine

### 324 Differential Diagnosis of Heat Stroke and Miner's Cramp

P. SCHULTZER (*Ugeskrift for Laeger*, July 4th, 1935, p. 705) draws attention to the risks of confusing heat stroke with miner's cramp, and to the promptness with which the latter responds to treatment based on physiological principles. On a very warm summer's day a 57-year-old stoker, employed at a gas works, was admitted to hospital with the diagnosis of heat stroke. The convulsions from which he suffered were to a certain extent tetanic. He had been ailing for a few days, and had perspired and drunk freely. The blood pressure being high on admission (190 mm. of mercury), 200 c.cm. of blood were withdrawn by venesection. Such profound collapse followed that his blood pressure could not be measured. The diagnosis of heat stroke was now revised, and it was noted that he was not febrile. Miner's cramp being adopted as a more likely diagnosis in view of the patient's dry skin and his profuse perspiration, which had left crystals of salt on his sweater, 50 grams of sodium chloride were given in milk and gruel by the mouth, and a litre of saline solution by subcutaneous injection. Rapid recovery followed.

### 325 Dinitrophenol Poisoning

J. E. NADLER (*Journ. Amer. Med. Assoc.*, July 6th, 1935, p. 12) calls attention to the increasing number of cases of poisoning resulting from the ingestion of repeated small quantities of dinitrophenol, mostly to reduce weight. Of twenty-two persons taking this drug, six developed toxic symptoms—namely, pruritus in three, loss of taste in two, and peripheral neuritis in two. The last two cases showed very striking sensory symptoms, but no motor or trophic disturbances. The condition started in the toes, with pricking, numbness, and pain. Paraesthesia persisted long after the original cause had been removed. In one case there was a moderate degree of peripheral sclerosis. Nadler points out that such poisoning effects are not due to the accumulation of the drug in the body, for it is rapidly destroyed and eliminated. These symptoms are probably due to the repeated attacks of therapeutic doses of the drug in patients who have a special idiosyncrasy to it. C. M. MACBRIDE and B. L. TAUSSIG (*ibid.*, p. 13) discuss the functional changes in the liver, heart, and muscles, with the loss of dextrose tolerance, which result from the ingestion of dinitrophenol. They found that in small doses it caused functional changes indicative of toxicity related to these parts of the body in a large percentage of patients in whom no special idiosyncrasy appeared to exist. Of the five reported deaths only two could be attributed to overdosage; these were associated with neutropenia, which was severe in four other cases. The authors argue that a drug with such dangerous potentialities should not be dispensed so freely as is the case at present.

### 326 Diet and Tuberculosis

A. ÖVERLAND (*Tidsskr. f. d. Norske Laegefor.*, July 1st, 1935, p. 730) is sceptical as to the influence of housing on tuberculosis, having found that Norwegian recruits lodged in quarters no better than stables had a sickness rate no higher than another body of recruits housed in modern barracks. On the other hand, reforms in the diet of these recruits about 1927 were followed by an improvement in the sickness rate. The author compares the death rates from tuberculosis in two districts. The first, a fishing district, had a population of over 6,000, and a tuberculosis death rate of 0.28 per cent. in the period 1922-33. The other, an agricultural district, with a population over 4,000, had a tuberculosis death rate of only 0.12 per cent. in the same period. The author argues that in the fishing

district the tuberculosis death rate was more than twice that in the agricultural district because the fishermen and their families lived largely on margarine, coffee, sugar, tinned milk, and other modern nutritional iniquities, whereas the farmers lived on their own unadulterated foods, being unable to dispose of them to dairies, mines, or factories. The calculation that the height of the average Norwegian is increasing by 1 cm. every twenty-five years should, in his opinion, be correlated with the changes introduced in his dietary.

### 327 Obesity and Wasting in Old Age

According to A. MÜLLER-DEHAM (*Wien. klin. Woch.*, July 19th, 1935, p. 950) obesity in the aged rarely appears first after the sixtieth year, but is usually an aggravation—from arthritis, broken leg, cardiopathy, or other sources of limitation of muscular activity—of a previously manifest tendency to fat deposition. In treatment diet should consist chiefly of meat, green vegetables, and salads, and in many cases be made poor in or free from salt. Days of rest in bed, with abstention from potatoes, fruit, or milk, may be interposed: the patient should then exercise the limbs or be massaged. Salyrgan injections eliminate water from the fat deposits. Thyroid may be required, but the heart should be watched, quinine being given if necessary. Iodine and combined endocrine preparations are of little use. Care should be taken not to overlook cases of Dercum's disease, in which there is general tenderness of skin and fat deposits. Müller-Deham believes that there is a primary cachexia which is a specific malady of the aged, distinct from pluriglandular insufficiency or hypophyseal cachexia, and due probably to affection of metabolic nervous centres in the brain. Necropsy findings, with the exception of terminal complications, are negative: the patients, in spite of a weight which may be less than 30 kg., preserve a comparatively good general condition, motility, appetite, and colouring of the skin. Dietetic treatment is usually ineffective, but some cases respond to antuitary extract.

## Surgery

### 328 Fracture of the Radius

G. MAGNUS (*Münch. med. Woch.*, June 28th, 1935, p. 1024) has in the course of six years observed 428 cases of recent fracture of the radius. In only six was it necessary to operate in order to secure the desired correction. The average duration of invalidism in the uncomplicated cases was between forty-five and forty-six days, and when the complicated cases and those requiring an operation were included in this analysis the average interval between the accident and the resumption of work was between fifty-four and fifty-five days. The treatment with which Professor Magnus has achieved these results has consisted of immobilization in plaster after correction of any displacement under an anaesthetic. With regard to the choice of anaesthetic, he distinguishes between hospital and general practice. In the former case the usually more or less distressed patient is best served with a short ethyl chloride or ether inhalation, or with an intravenous injection of sodium evipan. In general practice, however, the want of a skilled anaesthetist is an indication for local anaesthesia with novocain-adrenaline. In either case anaesthesia is indicated, not so much for the immediate comfort of the patient as for the relaxation it secures of the parts concerned, and the opportunities it gives the surgeon to attain his objective most effectively. The commonest cause of dissatisfaction with plaster-of-Paris is the employment of plaster bandages which have become moist. Unless such bandages are kept absolutely dry the plaster sets imperfectly or not at all.

**329 Prophylaxis of Post-operative Pulmonary Complications**

B. CAPALDI (*Arch. Ital. di Chir.*, June, 1935, p. 475) records the results obtained in Professor Milone's clinic at Naples by the use of optochin hydrochlorate, which Bergmann's School had recommended for the treatment of pneumonia, with the addition of calcium for the sake of its antiphlogistic action. Intravenous injections of 2 c.cm., containing 0.02 per cent. of optochin hydrochlorate and 0.4 of calcium camphosphosulphonate, repeated three times in the twenty-four hours, were given in 350 operations, with the result that only four cases of post-operative pneumonia developed, three of which were mild, only one being fatal.

**330 Eventration of the Diaphragm**

J. A. REED and D. L. BORDEN (*Arch. of Surg.*, July, 1935, p. 30) define eventration of the diaphragm as a congenital or acquired high or elevated position of one leaf of the diaphragm muscle, which causes aplasia or atrophy of the muscle fibres of the affected side. The characteristic symptoms are suggestive of a gastric, cardiac, pulmonary, or pleuro-pulmonary lesion. The majority of cases occur on the left side, and the condition is frequently seen in newborn and young children. Usually the symptoms in cases of diaphragmatic eventration appear insidiously, but sometimes the onset is sudden. Gastro-intestinal and respiratory symptoms dominate the picture in a majority of cases, and are caused by the displacement and dysfunction of the organs involved. Physical signs comprise laboured breathing, with some evidence of cyanosis, and there is diminished movement of the affected side. X rays are generally not helpful. Suggestive signs are: an unbroken, curved, convex line from the lateral wall of the chest to the mediastinum; and the so-called "cup and spill," "cascade type," or bilocular stomach. Medical treatment is recommended, and should be symptomatic, consisting of absolute rest and the administration of sedatives.

**331 Hernia and Latent Appendicitis**

Dealing only with simple reducible hernias, C. P. CAPLESCO (*Bull. de l'Acad. de Méd.*, July 30th, 1935, p. 173) believes that in many cases the digestive troubles are due not to the hernia but to a latent appendicitis, and will be relieved only by appendectomy, herniotomy being futile. Notes are given of three such cases, and thirty others are cited. The author emphasizes the advisability, in all cases of hernia, of a complete clinical and radiological examination of the patient to substantiate the presence or absence of a concomitant latent appendicitis, and thus obviate a useless herniotomy. Reference is made to the practice of performing prophylactic and preventive appendectomies in the course of laparotomies.

**332 Buccal Tuberculosis following Dental Extractions**

B. BURMAN and E. JONSSON (*Hygiea*, July 31st, 1935, p. 545) suggest that tuberculosis of the mouth after dental extractions may be much more common than the scanty literature would indicate. They have diagnosed three such cases in a Swedish hospital, and refer to certain other cases which, they believe, belonged to the same category, although the correct diagnosis was not made when they were in hospital. In doubtful cases the most valuable test is an exploratory excision or scraping, with a subsequent microscopical examination. Only in one of the three cases did the ulceration conform to the textbook picture of a tuberculous lesion; in the other two it required a microscopical examination to clinch the diagnosis. Such cases easily pass unrecognized. In the differential diagnosis, syphilis, cancer, ulcerating stomatitis, and actinomycosis must be considered. The prognosis is doubtful, the treatment multiform—from a radical operation to tinkering with lactic acid and the like. Diathermy, galvano-cauterization, and the x rays may also be prescribed.

**Therapeutics****333 Antiseptic Qualities of the Hypochlorites**

H. S. STACY and H. S. H. WARDLAW (*Med. Journ. of Australia*, June 1st, 1935, p. 682), who consider the hypochlorites to be the most efficient and inexpensive antiseptics in present use, report that considerable variations have been observed in the efficacy and hypochlorite content of Dakin's solution and esul. Solutions of "calsol" showed very little loss of strength after exposure to light at room temperature for eighteen days, but at the end of thirty-two days considerable loss had occurred. In the dark, however, no loss of strength could be detected during exposure to room temperature for forty-two days, to 37° C. for seven days, or to 57° C. for nineteen hours. Dakin's solution and esul did not stand exposure to light as well as calsol; bringing to boiling point did not materially alter the concentration of calsol or Dakin's solution, apart from the fact that there might be an increase in concentration due to the evaporation of water. The authors advise the adherence in practice to well-proved hypochlorite solutions, adding that some proprietary brands are valueless. The concentration should be approximately 0.5 per cent. of sodium hypochlorite or its equivalent. Dilution (because of the burning pain produced by strong solutions) is wrong; such irritation is often due to excess of alkali and is neutralized by boric acid in Dakin's original solution. To dilute the preparation interferes with the hypochlorite content and reduces the antiseptic value. This solution, however, keeps better at a higher concentration than that at which it should be used, and when this has been previously foreseen in the course of preparation, subsequent dilution to the degree indicated is necessary. Excessive variations of the concentration of Dakin's solution observed in Sydney Hospital were found to be due to variations in the available chlorine content of the chlorinated lime used in its preparation. Such variations have now been stopped by attention to this detail. The authors condemn the practice of making up solutions of a concentration higher than that at which they are intended to be used unless careful directions as to dilution are given.

**334 Treatment of Facial Neuralgia**

G. DEPARTOUT (*Presse Méd.*, June 26th, 1935, p. 1023) states that resection of the middle turbinate, a structure of rich innervation, causes marked benefits in certain cases of facial neuralgia, especially if of fronto-orbital distribution. Several cases are cited, and short notes of seven are given in which no nasal infection or obstruction was present. The benefits are due to an action on the trigeminal nerve rather than on the vago-sympathetic system. Total or partial resection (of the head of the bone when the pains are orbital, and of its posterior extremity when they radiate to the neck) may be performed. Operative and post-operative haemorrhage is slight and rarely necessitates tamponing. Some pain may persist for a week or two, but menthol inhalations and the application of adrenaline powders usually ensure complete cure.

**335 Treatment of Insect Bites**

F. FLURY (*Med. Klinik*, July 26th, 1935, p. 972) divides insects into two classes—those that sting and those that suck blood. The "bite" is at first a mechanical wounding of the skin to which toxic trauma is added. The bite of a bed bug has a diameter of 0.015 mm. (500 times smaller than the smallest of injection needles), and the flea only injects 0.00004 c.mm. of saliva at a time. The author believes that insect bites are in the nature of saponins and contain no acetic acid. Their toxins seem to be related to the stearin derivatives. It is still impossible to render an insect bite ineffective immediately, on account of the minuteness of the sting and the rapidity of toxin dissemination. Mechanical removal



and neutralization of insect toxins are of no avail, but it is possible to make them insoluble by the application of salt and magnesium sulphate, as well as alcohols, which precipitate proteins. Chemicals which disintegrate the toxins—for example, oxidizing agents, tincture of iodine, Dakin's solution, chlorine, and bromine water—are useful. Local inflammation is best treated by the application of cold compresses, astringents, dilute acids, honey, and sugar. Adrenaline and cocaine help to lessen oedema. Pain is relieved by any local anaesthetic, of which cocaine is the most effective. Phenol, menthol, thymol, camphor, and tar products are useful to lessen itching. Skin tension can be lowered by bland ointments containing fats, soaps, oils, and alkalis. Disinfection of insect bites is advisable, as more deaths occur from infection than from the insect toxin. General symptoms are usually those of anaphylactic shock, and are to be treated accordingly.

### 336 Treatment of Achylia Gastrica

According to B. SCHARLAU (*Med. Welt*, July 6th, 1935, p. 977) administration of hydrochloric acid and pepsin usually fails to relieve the dyspeptic symptoms of achylia gastrica or subacidity. The ingested hydrochloric acid increases the already abnormally high acidity of the blood, leads to fixation there of alkali, and causes further reduction of the defective intestinal and pancreatic secretions. Scharlau therefore recommends a combination of pepsin with citric acid: the latter fixes alkali temporarily in the gut, but it becomes free again as the citric acid decomposes into carbon dioxide and water. Citric acid, independently of its acidity, assists peptic digestion by the specific activity of its anion.

## Disease in Childhood

### 337 Erythema Annulare

A. WALLGREN (*Acta Paediatrica*, 1935, xvii, 447) states that the occurrence of erythema annulare in the acute rheumatic manifestations of childhood has been largely ignored by writers on this subject. He has studied eighteen cases with this eruption observed during four years at the Gothenburg Children's Hospital among 146 children with acute rheumatic infections. The rash consists of narrow rings, pale rose in colour, appearing first on the trunk, especially on the chest and upper part of the abdomen. The rings grow larger, coalesce, and form polycyclical configurations. There is no itching or desquamation. The rash lasts for a few days and then fades, only to recur. There are no attendant symptoms, such as aggravation of the fever, nor are there any of the other rheumatic manifestations. Wallgren considers the eruption as specific to acute rheumatism. It occurs earlier in the infection than rheumatic nodules, but has the same significance as regards the occurrence of cardiac involvement in most, if not all, cases in which it appears. Exceptionally the eruption may be the first clinical evidence of rheumatic infection. Wallgren regards this condition as "an angioneurosis arising on a rheumatic-allergic basis in certain highly susceptible individuals."

### 338 Infantile Allergy

P. WORINGER's investigation into the origin of infantile allergy (*Rev. Franç. de Péd.*, 1935, vol. xi, No. 3, p. 283) excludes pulmonary allergy and is concerned particularly with allergic eczema. He finds that infants are sensitive to substances which they have never absorbed, and even, in one or two cases, to substances which the mother never ate during pregnancy or lactation. The sensitivity wears off in a few years. In sixty-six children with infantile eczema 67 per cent. had a definite family history of infantile allergy, either in their parents or their uncles and aunts. There were forty-seven boys and nineteen girls in the series. Allergic brothers and sisters were sensitive to the same protein, and, when the fact could

be determined, the ancestor had been susceptible to this protein also. After a very careful consideration of the theories that this type of allergy may be of post-natal origin, or may be acquired during intrauterine life, it is concluded that all the cases cannot be thus explained. Woringer considers that the condition is due to a specific hereditary sensitivity to the particular protein and not to a hereditary liability to become sensitized.

### 339 X Rays in Acute Cervical Adenitis

S. G. SCHENCK (*Amer. Journ. Dis. Child.*, June, 1935, p. 1472) laments the lack of reports on the treatment of acute cervical adenitis by x rays, though numerous authors refer favourably to this treatment in acute lymphadenitis in other regions. A series of 105 consecutive severe cases were treated in children of from 6 months to 11 years old. They were almost all secondary to upper respiratory infection. One dose of 25 per cent. of an erythema dose was sufficient in sixty cases, thirty-nine had two doses, and the remainder three. As many as 85.7 per cent. were cured, temperature and subjective symptoms disappearing in forty-eight hours. The remainder suppurated. The only unpleasant effect produced was a slight temporary increase in the swelling. The author considers that small doses of x rays act by accelerating all phases of inflammation, and, as lymphoid tissue is highly sensitive to x rays, acute lymphadenitis is the most responsive of all inflammatory conditions.

### 340 Raw Apple Diet in Acute Enteritis

J. GIBLIN and M. LISCHNER (*Arch. of Pediat.*, June, 1935, p. 355) treated 130 cases of acute enteritis in infants from 4 months old and young children with ripe, raw, grated apple, including the skin, and giving one to four tablespoonfuls every two hours for forty-eight hours. If the flavour is disagreeable a little banana mash may be added. Some extra parenteral fluid was found necessary. For the next forty-eight hours an intermediate diet of cereal, cocoa, toast, rice soup, potato gruel, scraped beef, tea, cottage cheese, and banana is used. Milk is next added, then vegetables, and finally stewed fruit. Apple alone is resumed on any sign of a relapse. There was only one death in the series, while some of the cases were of considerable severity.

### 341 Treatment of Dysentery in Childhood

A. LOESCHKE (*Deut. med. Woch.*, July 5th, 1935, p. 1065) refuses to subscribe to the doctrine that dysentery in childhood has now almost ceased to be serious, for during 1933 and 1934, when he observed sixty-eight cases, he was struck by the stormy character of the disease in several of them. All the five infants did indeed recover, but among the older children there were seventeen very severe cases, nine of which terminated fatally. The infecting organisms were not always the same, and Shiga-Kruse as well as Y- and Flexner dysentery bacilli were cultivated from the stools. Their bacteriological examination was sometimes negative, and this was often the case when the disease was most severe. No relation could be established between the clinical course of the disease and the character of the organism responsible for it. Although all the severe cases were treated as a matter of routine on admission to hospital with the injection of 20 c.cm. of a polyvalent dysentery serum, the author expresses no enthusiasm on this score. He was much more impressed by the results of blood transfusion and also by the intravenous injection of a 5 per cent. solution of grape sugar. For this treatment he used the continuous drop infusion system, eighteen to twenty drops of this solution being allowed to flow per minute through the glass or metal cannula secured in a vein. The corresponding arm was immobilized by a Cramer splint. This system had the additional advantage of facilitating the transfusion of citrated blood whenever it was necessary. Signs of progressive oedema of the brain should be an indication for such an intravenous injection of grape sugar.

## Obstetrics and Gynaecology

### 342 Haematuria Complicating Pregnancy

H. L. MORRIS (*Journ. Amer. Med. Assoc.*, August 10th, 1935, p. 403) states that in a consecutive series of 154 pregnancies with urological complications haematuria was observed in thirty. In these haematuric cases cystitis was invariably present; there were twenty-two cases of pyelitis, ten of hydronephrosis, pyonephrosis in two, ptosis in nine, megalo-ureter in eleven, ureteral calculus in two, and ureteritis in two. He argues that in this condition an expert urological opinion should always be obtained, and radiographs will often be necessary. Haematuria may be an early symptom in pregnancy toxæmia, occurring as soon as the fourth or fifth month, when prompt treatment may be efficacious. In the author's series the average age of the patients was 27, the youngest being 16 and the oldest 39; in sixteen of the thirty cases the haematuria occurred with the first pregnancy, in seven with the second, and in four with the third. The urinary complications developed in the sixteen primiparae during the sixth and seventh months of the pregnancy, but the average time of onset for the whole series was 4½ months.

### 343 Detection of Chronic Gonorrhoea *intra menses*

F. SCHMIDT-LA BAUME (*Derm. Woch.*, July 6th, 1935, p. 811) alludes to contradictory reports concerning the provocative effect of menstruation in favouring the detection, subsequently, of gonococci in female carriers. He points out that prostitutes coming for routine examination are not usually examined during menstruation; yet in his own work at Mannheim twenty gonococci-positive prostitutes were found among the first fifty examined during menstruation, and in twelve months positive findings were 15 per cent. during and 6 per cent. between the menses. Aesthetic considerations should, he thinks, give way to those of the public health, and examination during menstruation should be compulsory: the gonococci are usually entrenched in the glands of the cervix uteri, less frequently in the endometrium and adnexa. H. WENDEBORN (*ibid.*, p. 814) has confirmed these findings in a similar investigation at Leipzig. From examinations during menstruation he has found gonococci in women in whom cultures taken at other times had been repeatedly negative. Menstruation, he concludes, is very often superior to diathermy and other methods of provocation.

### 344 Conduct of Twin Pregnancies

C. HOLTERMAN (*Munch. med. Woch.*, July 26th, 1935, p. 1191) reports from the University Maternity Hospital in Cologne that during the past ten years his hospital has dealt with 341 twin confinements, the mortality for the mothers being 2.6 per cent., for the first twin 18.8 per cent., and for the second twin 23.6 per cent. The maternal mortality depended mainly on eclampsia or its sequels (seven deaths) and only to a lesser extent on such complications as sepsis and anaemia. The infant mortality depended largely on the immaturity of the twins, approximately 10 per cent. dying for this reason. A scrutiny of individual cases left the impression that some of the maternal and infant mortality could have been avoided by a more skilled conduct of the labour. In the author's district midwives are instructed to invoke medical aid in every case of twins, even when the existence of a second twin is not suspected until after the birth of the first twin. This regulation puts the onus of the safe conduct of twin labour on the doctor, who is justified in dealing with the case in the patient's home only if he has mastered all the manoeuvres which the course of events may indicate. In the author's opinion the most common mistake is so-called expectant treatment, which entails the loss of the most propitious moment for delivery. In his hospital barely 40 per cent. of the twin confinements were completed without any artificial intervention; and even after the birth of both twins some operative measure, such as manual detachment of the placenta, was necessary in 5 per cent. of all the cases.

## Pathology

### 345 Metabolism in Pyrexia

Having under observation a case of juvenile general paralysis of the insane treated with malaria, W. W. PAYNE (*Biochem. Journ.*, June, 1935, p. 1310) noted that some specimens of urine were almost devoid of phosphates. He decided, therefore, to investigate the quantities of phosphate, creatine, and creatinine in the blood and urine in children undergoing such malarial attacks. He found that there was a fall in the phosphate content of the blood during the initial rise of temperature, followed by an increase as soon as the temperature began to drop. This fall in the phosphate figure might be so great as to cause the phosphate to disappear from the urine. There was a rise of the creatine in the blood concurrently with the pyrexia, followed by a decrease as the temperature fell. The creatinine followed the same course after a slight time lag. As in the case of the phosphate, the fall was great enough to cause the normal creatinuria of children to disappear. When the fever was stopped by giving quinine, there was a simultaneous fall in both the phosphate and the creatine. Payne considers that he has secured evidence of the existence of a renal threshold for phosphate excretion in children between 1.8 and 3.2 mg. per 100 ml., but no evidence of a creatine threshold. He submits an explanation based on a rapid breakdown of phosphocreatine, and formation of hexose-monophosphate in the muscles by the combined action of adrenaline and muscular action, followed by an equally rapid reversal when the temperature peak has been passed.

### 346 Bactericidal Power of the Puerperal Blood

R. HARE (*Journ. Path. and Bact.*, July, 1935, p. 61) has been investigating the alterations in the bactericidal power of the blood which occur during haemolytic streptococcal infections in the puerperium. He reports that in patients with infections localized to the uterus or its immediate neighbourhood the bactericidal power of the blood remains usually at its normal level but tends to increase after some time. But this may not occur, or it may be so late that it remains doubtful whether the absence of invasion is due to a high degree of general immunity. In patients with generalized infections who recover, the bactericidal power of the blood was found to be much greater than normal, while in the patients who died the bactericidal power was greater in about half of the cases. Hare considers that this increased bactericidal power is attributable partly to the development of a bacteriostatic or bactericidal power in the serum and partly to the formation of bacteriotropins which bring about an increase in the amount of phagocytosis. While it is impossible to understand why death should ensue in spite of the apparent increase in general immunity which usually occurs, it seems likely from post-mortem findings that the conditions at the main focus of infection in these fatal cases (peritoneum or thrombosed veins) are not such as will allow the free access of healthy leucocytes and plasma, though bacteria and their products can easily reach the general circulation. This explains why most methods of therapy in these cases are practically valueless.

### 347 Prevention of Poliomyelitis by Hyperpyrexia

H. F. WOLF (*Proc. Soc. Exp. Biol. and Med.*, April, 1935, p. 1083) reports successful results in the prevention of experimental poliomyelitis in monkeys by means of short-wave therapy. Five monkeys infected by the intracerebral route and treated one to two days after inoculation failed to develop paralysis, while five control monkeys that were not treated at all, or not treated until after the onset of fever, all became prostrate. Treatment consisted in maintaining the temperature above 107° F. for a total of three to seven and a half hours. The author believes that the beneficial effect of hyperpyrexia is not due to a direct action on the virus, but more probably to a dilatation of the cerebral capillaries resulting in a partial breaking down of the blood-brain barrier. Antibodies can then pass into the nervous tissue and neutralize the virus.