PART III.

SPECIAL REPORTS.

REPORT ON MEDICINE.

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I. USE OF SALICYLATES IN ACUTE RHEUMATISM.

MILLER has studied the effects of salicylates on a series of cases of acute rheumatism treated at St. Mary's Hospital, more especially with a view to answering or admitting the truth of certain objections levelled against the salicylate method of treatment. He formulates the following conclusions :—(1) The objection that the larger doses of salicylates do not imply increased absorption is without foundation, as the amount of salicylate excreted in the urine varies directly with the amount ingested. (2) The objection that large doses are prone to produce vomiting is only partially true. Salicylates are gastric irritants, and will therefore produce vomiting in a certain percentage of cases, but this may occur quite independently of the dose given. Vomiting is more a matter of the type of case under treatment than anything else, and is specially seen in cases with severe cardiac lesions. In such cases it may be necessary in consequence to limit the use of the drug. (3) The objection that large doses are too prone to produce acid intoxication is only partially true. Provided constipation is avoided, and that alkalis are given with the salicylate acid, intoxication can usually be avoided. (4) The objection that large doses are in themselves dangerous is not supported by an analysis of cases, no fatality in his series being attributable in any way to the drugs employed. (5) The objection that salicylates do not prevent relapses is unsound, as most

relapses occurred after small doses or a short period of administration ; cases taking large doses showed some immunity to relapse.—*Quarterly Journal of Med.*, July, 1913.

II. THE SIGNIFICANCE OF THE PRESENCE OF ALBUMEN IN SPUTUM.

KAUFFMANN (*Beitrage zur Klinik d. Tuberkul*, Bd. 26, H. 3) points out that the recognition of albumen in sputum is very easily carried out by a simple test available at the bedside. Albumen is found in the sputum in pulmonary tuberculosis, in pneumonia, in congestive catarrh and in foetid bronchitis ; it is absent in chronic bronchitis. When a positive albumen reaction is in accord with other physical signs it is confirmatory of a diagnosis of active tuberculosis. In healed tuberculosis the albumen disappears, and in croupous pneumonia it disappears soon after the crisis. If it should later return it points to a fresh pneumonic invasion, or to empyema, or to the formation of a pulmonary abscess.

III. SYPHILIS OF THE HEART.

ORKIN (*Berlin klin. Woch*, 1912, No. 25) points out that syphilis plays an important part in the aetiology of myocarditis. Often one finds no cause for the sickness, and a history of syphilis is not obtained, but the Wassermann reaction may prove positive, and x-rays will show a heart enlarged in every direction, and with a dilated aorta. In young individuals in whom cardiac symptoms suddenly appear without apparent cause, one should especially think of syphilis. In almost all young patients relief of symptoms rapidly follows on appropriate treatment either by mercurial inunction or by potassium iodide. In older patients cure is much more difficult of attainment. It has not yet been determined whether salvarsan can safely be used.

IV. VALUE OF LUMINAL AND OF CROTALIN IN EPILEPSY.

HAUTTMANN (*Münch med. Woch*, 1912, No. 35) states that the number and the severity of epileptic fits can be

diminished by the administration of luminal. This is specially noticeable in certain severe cases of epilepsy which can no longer be influenced by even the highest doses of bromides. In cases of moderate severity doses of from .15 to .2 gramme may be given daily, and in severer cases .3 gramme. Even after the daily use of luminal for a month no cumulative effects are produced.

SPANGLER writes on the use of crotalin for the same disease. He has now tried it in thirteen cases (*New York Med. Journal*, 1912, Sept. 14) of idiopathic epilepsy, and is of opinion that it diminishes the frequency and the severity of the fits. It also calms the excitability of the nervous system, and in general exercises a favourable influence on metabolism and on the mental state. Provided aseptic precautions are taken and the patients are carefully observed no ill results follow the use of the drug. It is supplied in sterilised ampullæ containing 1 cubic centimetre.

V. ANTE-MORTEM THROMBOSIS IN PNEUMONIA.

FLEMING (*Edinburgh Med. Journal*, Sept., 1913) discusses the nature of the clots so often found in the right heart in death from lobar pneumonia, and expresses the opinion that such clots are frequently formed hours, or even days, before death. Excess of CO_2 in the blood, and the formation of abundant thrombokinase owing to disintegration of large numbers of leucocytes are probably important factors in bringing about this *ante-mortem* thrombosis. Clinically he believes that thrombosis may be feared in any case in which engorgement of the jugular veins is present along with diminution in loudness of the pulmonary second sound. In order to combat the tendency to thrombosis in pneumonia he advocates the early administration of cardiac tonics, with the addition of diffusible stimulants if the heart shows any signs of difficult action. He thinks that the administration of oxygen may be useful also by counteracting the excess of carbon dioxide in the blood, and also suggests the use of drachm doses of citric acid every four hours. Bleeding he thinks should

never be performed unless in robust patients, as it may only aid a thrombosis which has already begun.

VI. EHRLICH'S ALDEHYDE REACTION IN HEPATIC CONGESTION.

JONASS (*Wiener klin. Woch*, 1912, No. 10) has made investigations on the amount of urobilin found in the urine in cardiac and pulmonary diseases. In each case he has tested fresh urine by means of Ehrlich's aldehyde solution, a pink colour indicating the presence of urobilin. He finds that the reaction is positive in all cases in which the right heart is congested, and that the amount increases if extra work is thrown on the heart in such cases. In nervous asthma the reaction is positive during the paroxysm, and subsides as the symptoms pass off. In valvular disease of the heart a positive reaction is obtained while failure of compensation exists, and a negative one when compensation is normal. In each case presumably the appearance of the urobilin is due to the hepatic insufficiency caused by congestion secondary to pulmonary or cardiac disease. As a measure of the amount of venous congestion present the test may be of some value.

VII. TESTS FOR HEPATIC FUNCTION.

WHIPPLE and others discuss the value of certain tests for hepatic function (*Johns Hopkins' Bulletin*, July, 1913). They point out that lipase exists in normal human and animal blood plasma in fairly constant proportions, and that experimentally injury of the liver by chemical means causes a rise in this plasma lipase. Clinically they have found a high lipase amount in several cases of eclampsia : in jaundice there may be a slight rise, but more often there is a fall. The amount of fibrinogen in blood is also fairly constant : it falls to a low level with injury to the liver and returns to normal as recovery takes place. Clinically a low index is found in hepatic cirrhosis, and in cases of delayed chloroform poisoning. The third test discussed is known as the phenol-tetrachlorophthalein test, and is of special value, as this drug when injected intravenously or

subcutaneously is excreted by the liver cells into the bile, and is excreted in the faeces. Under normal circumstances from 40 to 50 per cent. of intravenous doses can be recovered from the faeces, but when the liver is injured the percentage may drop to 20 per cent. or even 10 per cent., and a certain amount of the drug begins to appear in the urine. The test is of course of no value in cases of obstructive jaundice, but clinical observation in other cases suggests that the test may prove of great value in the estimation of hepatic function.

VIII. TUMOUR OF THE PINEAL BODY.

BRILEY and JELIFFE (*Archives of Internal Med.*, 1911, VIII. 6) report a case of tumour of the pineal body, and analyse the symptoms noted in it and in all other previously published cases. An early symptom is great increase of intracranial pressure, caused by a rapid development of hydrocephalus, which leads to headache and attacks of vomiting. Giddiness is an early symptom, and is followed by optic neuritis. Lethargy, paralysis of ocular muscles, nystagmus, and inequality of the pupils are also met with, and sometimes dilatation of the pupils resulting from pressure on the corpora quadrigemina. Pressure on the cerebellum may give rise to cerebellar symptoms. Among characteristic symptoms is to be mentioned obesity, which probably depends on the kind of tumour present, and on co-existing hypopituitarism produced by the tumour pressing on the pituitary body. In the same way probably arises the precocious development of the genital organs that is met with, though Biach has shown that the pineal gland and the sexual glands are in some way related to one another, inasmuch as castration of young animals leads to atrophy of the pineal gland. Sometimes severe cachexia is encountered and is regarded as the direct result of changes in the pineal gland itself.

IX. THE HISTOLOGY OF MYOCARDIAL DEGENERATIONS IN VARIOUS INTOXICATIONS.

ANITSCHKOW has investigated the changes produced in heart muscle by the toxin of diphtheria, and also those produced by the combined action of adrenalin and

spartein. He found that the changes could be grouped under the three headings of degenerative changes in the muscle fibre, œdematous changes, and inflammatory changes. The degeneration consisted in practical destruction of the nuclei of the muscle fibres, deposition of fat within the fibres, and a general loss of differentiation. The œdematous changes consisted of swelling of the interstitial substance accompanied by the appearance of new cells, and without any change of the fibres themselves, and were most noted in the hearts poisoned by adrenalin. Inflammatory changes presented the appearances common to inflammation elsewhere, and in later stages were represented by the development of granulation tissue.—*Virchow's Archiv.* Bd. 211, 2.

X. RAIN-BEARING WINDS AND THE PREVALENCE OF TUBERCULOSIS.

W. GORDON discusses this subject, and, as a result of his investigations, concludes that populations exposed to strong, prevalent, rain-bearing winds tend to suffer considerably more from pulmonary tuberculosis than populations sheltered from them. He thinks it probable that similar exposure affects appreciably the course of existing cases of phthisis, and increases the prevalence of bovine tuberculosis. He urges the importance of taking into account the wind-exposure of any place recommended as a place of residence to a cured case of pulmonary tuberculosis, and points out the necessity in investigating any influence bearing on the prevalence of pulmonary tuberculosis of first recognising and eliminating the influence of strong, prevalent rain-bearing winds.—*Practitioner*, Jan., 1913.

THE LISTON VICTORIA JUBILEE PRIZE.

At the meeting of the Royal College of Surgeons of Edinburgh, held on October 15th, the Liston Victoria Jubilee Prize of £100 was awarded to Mr. John David Malcolm, M.B., F.R.C.S.E., London, for his investigation of Surgical Shock.