ABSTRACTS FROM CURRENT MEDICAL LITERATURE.

EDITED BY GEORGE A. ALLAN, M.B., CH.B.

M E D I C I N E.

A Study of the Alleged Presence of Tubercle Bacilli in the Circulating Blood. By E. Burvill-Holmes, M.D. (*American Journal of Medical Sciences*, January, 1910).—Considerable interest has been aroused during the past year by the discovery of tubercle bacilli in the circulating blood by Rosenberger and others by easy clinical methods. Abstracts of Rosenberger's papers have appeared in the *Glasgow Medical Journal* of July, 1909, and January, 1910.

Burvill-Holmes reviews the literature of the subject in chronological order. The following results are noted:—Forsyth examined 12 cases, with 10 positive results. Burnham and Lyons examined 10 cases, and all were negative. Schroeder and Cotton examined the blood of 48 tuberculous cattle, with findings uniformly negative, and Mohler 8 tuberculous cattle with negative results. Ravenel and Smith failed to demonstrate tubercle bacilli in any of 18 cases. Petty and Mendenhall studied 10 cases, only 7 of which were tuberculous, yet in all of them acid-fast bacilli were demonstrable in the blood. Hewat and Sutherland made 22 examinations of 20 tuberculous individuals, and only in one case could they demonstrate bacilli. In repeating the examination of this positive case, it was found to be negative. Anderson examined the blood of 48 cases of human tuberculosis, together with 13 guinea-pigs and 8 rabbits experimentally infected. Of these but 1, a case of human tuberculosis, was positive, and guinea-pig inoculation from the case was negative.

The author publishes a study of 56 cases. These were—5 cases of suspected tuberculosis, in which the physical examination was negative or questionable; 10 cases in which physical examination was clearly positive, but in which the sputum was either negative or not examined; 4 incipient cases in which both the physical examination and the sputum were conclusive; 9 cases moderately advanced; 1 moderately advanced case with laryngeal involvement; 1 case of tuberculous adenitis; 1 case of miliary tuberculosis in an infant; 1 case of bilateral senile pneumonia; 2 cases of epidemic cerebro-spinal meningitis. Rosenberger's technique was followed out. A prolonged and exhaustive examination of the slides was made. In 5 cases acid-fast bacilli were found. These consisted of 1 case of miliary tuberculosis, 1 case of suspected incipient tuberculosis, 1 case of pneumonia, and 2 cases of epidemic cerebro-spinal meningitis. In no case were the organisms morphologically typical tubercle bacilli. In some instances they appeared much larger and broader, with round ends and a pale pink colour; in other instances they were short, and stained intensely. Seventy-four guinea-pigs were inoculated, but in none was tuberculosis induced.

Such results of the blood examination are in striking contrast to Rosenberger's. All sources of contamination seem to have been excluded by Rosenberger, but Burnham and Lyons, and, more recently, Brem, have demonstrated one source of possible error. Brem suspected the distilled water he was using. After fixing the sediment from the distilled water upon a slide by means of albumen, he was able to demonstrate acid-fast bacilli in every specimen examined.

Rosenberger did examine his solutions, with negative result, but used no albuminous fixative. As 4 of the author's 5 positive findings were from the same hospital, he examined the distilled water there, and found many acid-fast bacilli on the sediment. At the other hospital, where only one positive case had occurred, no bacilli were found in the water.

Burvill-Holmes considers from his results that tubercle bacilli do not constantly circulate in the blood of tuberculous individuals, although they are occasionally present. Being very few in number, they must be extremely difficult to find.—ARCHD. W. HARRINGTON.

Observations on Acute Leukæmia, with Special Reference to Auer's Bodies. By Reuben Ottenberg, M.D. (*American Journal of Medical Sciences*, October, 1909).—Auer, in 1903, described certain granules, crescents, and rods which were seen in the large lymphocytes in cases of acute leukæmia. These structures were seen both in fresh blood and in smears stained with various azure dyes or with Ehrlich's triacid stain. These observations have been confirmed once by Pappenheim. The granules and crescents are indistinguishable from the azurophile granules now recognised as occurring regularly in lymphocytes. The rods, on the other hand, have a distinct and characteristic appearance. They are found only in the cell body of the large lymphocytes. Usually single, sometimes two and even four may be seen. Stained by the Giemsa, Wright, or Hasting's method, they are red. Usually the ends are tapering, sometimes they are nodular, sometimes abrupt.

Ottenberg's case was a typical acute lymphatic leukæmia. The blood was examined for the rods daily. It was generally necessary to examine one hundred to six hundred cells in order to find a rod. On three days no rods at all were seen. Excellent microphotographs of the rods illustrate the paper. In other two cases, likewise, the rods were present in small numbers only. One was a case of acute lymphatic leukæmia, and the other a case of chloroma.

Ottenberg has examined the blood of many normal subjects, as well as that of many other types of disease, including myelogenous and chronic lymphatic leukæmia. No rods were found. The rods are certainly not artefacts. They may be cell secretions or crystals. There is no proof that they are parasites. All attempts to cultivate them from the blood of the patient were unsuccessful. Smears from the organs *post-mortem* failed to show the rods. The films, however, stained poorly, whereas in the blood rods were only seen in perfectly preserved lymphocytes. Attempts at inoculation of monkeys with the patient's blood failed.—ARCHD. W. HARRINGTON.

Spastic Paraplegia dating from Childhood (Little's Disease?), with little or no Demonstrable Lesion in the Pyramidal Tracts. By John H. W. Rhein, M.D. (*American Journal of Medical Sciences*, December, 1909).—The patient, a man, aged 64 years, had had measles, chicken-pox, and "spasms" when a child. He stated that the paraplegia began when he was aged about 5 years, but on another occasion said that the "spasms" in infancy had left him in his paraplegic condition. Physical examination showed a spastic condition of both legs, which remained stationary from the time of his admission to the Philadelphia Home for Incurables on 28th September, 1899, until his death on 9th May, 1906. The gait was that of spastic diplegia, and a stooping attitude was assumed on walking. A perfectly erect posture could only be assumed with difficulty, and could not be long maintained. Knee-jerks were much increased and equal. Babinski's sign was marked on both sides. No ankle clonus was present. The grasp of the right hand was good, but was slightly weaker in the left hand. There seemed to be no loss of power or spasticity in either upper extremity. The patient stuttered, and mentally was considerably below the average intelligence.

A microscopic study of the brain and cord revealed nothing of importance,

excepting a fineness of the fibres in the crossed pyramidal tracts. Stained by Weigert's method, the crossed pyramidal tracts showed the presence of a number of small fibres closely packed together, and a sparseness of large well-formed fibres. There was a slight increase in the connective-tissue. The smallness of the fibres in the crossed pyramidal tracts contrasted clearly with the much larger fibres in the adjoining direct cerebellar tracts. The fineness of the nerve fibres was more apparent in the cervical and thoracic regions than in the lumbar region. Numerous corpora amylaceæ were also present in the crossed pyramidal tracts, as well as in the posterior columns at all the levels studied.

The author is inclined to believe that this was a case of Little's disease. The case seems to confirm the theory that the fine calibre of the nerve fibres offered resistance to the transmission of motor impulses, which for their perfect conduction require well-formed and large nerve fibres.

—ARCH. W. HARRINGTON.

SURGERY.

A Case of Appendicitis in which Oxyuris Vermicularis was found in the Appendix. By Ashley Pastor Cooper Ashhurst, M.D. (*American Journal of Medical Sciences*, October, 1909).—This patient, a Polish girl of 14 years, was admitted to hospital with signs of appendicitis. The temperature was 100.6° F., the pulse 88, and the respirations 34 per minute. The leucocytes numbered 25,000 per c.mm. At the operation the appendix was congested at the tip, but presented no other gross evidences of disease. The lumen of the appendix contained numerous oxyurides vermiculares. Microscopically, the appendix presented the ordinary picture of acute suppurative appendicitis in the early stage, its walls being studded with miliary abscesses. The presence of intestinal parasites in the appendix is by no means rare. In this case the pathologist's view was that the presence of the oxyurides was merely a coincidence.—ARCH. W. HARRINGTON.

A Contribution on the Operative Treatment of Prolapsus Recti. By Dr. Eugen Bircher (*Zentralbl. f. Chirurgie*, November, 1909).—That the operative treatment of prolapse of the anal and rectal mucous membrane as practised by various surgeons is not wholly or permanently satisfactory is shown by the variety and number of the operations practised.

Various methods have been devised and practised with a view to strengthening the pelvic floor; for example, by infolding of the wall of the rectum by excising a wedge-shaped piece of the rectum and anal canal. These methods having proved in many cases very unsatisfactory, it was thought by some surgeons that the only method of permanently keeping the rectum in its place was by "suspension." Kocher recommended ventro-fixation of the descending colon or sigmoid flexure.

Of late Ekehorn has advocated a method by which the prolapsed rectum is fixed or suspended to the sacrum by sutures passed from the skin past one side of the sacrum, through into the lumen of the bowel, and back past the other side of the sacrum. This operation is not very satisfactory, and there is considerable risk of sepsis.

Sick, on the other hand, endeavours to replace the rectum in the hollow of the sacrum by introducing a large, firm tampon into the retrorectal space. This operation is analogous to that of fixation of a floating kidney by inducing adhesions between the organ and the surrounding tissues.

The author of this paper, in reviewing these various methods, condemns those of Ekehorn and Sick, and also that of excision of a wedge-shaped piece of the rectum. He states that he has found the operation of colopexy (ventro-suspension) very satisfactory in some cases, and then proceeds to describe a