their neglecting to observe this essential precaution. Roger and Valensi claim that albumin is absent in acute bronchitis, whereas other observers have claimed it to be frequently present. It is admittedly difficult to distinguish clinically between acute bronchitis and the earlier stages of bronchopneumonia, and we suggest that this discrepancy is due to the presence of areas of consolidation in those cases which contained albumin.

In this group 98.9 per cent. of specimens examined contained albumin, an improvement as compared with the first series, when the percentage of such cases was 96.4, due probably to the more sensitive test—viz., that of boiling the filtrate. Traces only of albumin were present in 21.5 per cent. of these cases, and these small quantities are found in specimens almost entirely consisting of mucin and with a very small amount of purulent material. Quantitative estimation of the albumin has been undertaken by Roger and Wourmann and by Smolizanski. Their results we consider as unconvincing, and we are unable to find any definite relation between the quantity of albumin present and the amount of lung involvement.

In Group 2 (T. B. — ; albumin +), which include 39 specimens, a large quantity of albumin was present in 12 and a trace in 27. In 20 a clinical diagnosis of active pulmonary tuberculosis was made, and in only one was it in doubt. The antiformin method for tubercle bacilli was undertaken in all specimens almost entirely consisting of mucin and with a very small amount of purulent material. Quantitative estimation of the albumin has been undertaken by Roger and Wourmann and by Smolizanski. Their results we consider as unconvincing, and we are unable to find any definite relation between the quantity of albumin present and the amount of lung involvement.

In Group 3 (no tubercle bacilli and no albumin) 32 cases have been examined and in 25 of these the diagnosis was chronic bronchitis. The remainder include 2 cases of bronchectasia, 1 of simple laryngitis, and 4 of clinical tuberculosis, all very doubtful, and although they must be recorded as evidence against the conclusion both above and to follow, the doubt as to the diagnosis raised on clinical grounds tends to militate against the importance of the evidence. With reference to the cases of bronchectasia in Groups 2 and 3, the presence or absence of albumin depends on the amount of alveolitis existing round the cavity. In a case of long standing with a considerable degree of fibrosis this is practically negligible, and consequently albumin may be absent. This, however, is the exception, and traces at least were present in 80 per cent. of the cases examined. That albumin is constantly associated with an alveolitis is supported by the clinical signs of consolidation present in cases where the albumin reaction is positive, as well as cytological content of the specimens.

In the first group 84 per cent. contained alveolar cells in considerable numbers, 16 per cent. a few, and no specimen was free from these mononuclear cells. In the second group the cellular content changes, but not to any marked degree; and in the third group the specimens containing a considerable number of alveolar cells is reduced to 28 per cent. Table III. indicates the behaviour of these cells. Every specimen of sputum will show a few alveolar cells, their presence being usually demonstrable in the small quantity of morning sputum expectorated by the apparently healthy adult. These cells are, however, of quite a different type from the ordinary alveolar, and are of slight, if any, pathological significance. Apart from this there is definite evidence that the number of ordinary alveolar cells is greatly increased in albumin-containing specimens.

Conclusions.—1. Practically all cases of active pulmonary tuberculosis contain albumin in the sputum. 2. A negative examination for albumin on three successive occasions where tuberculosis bacilli are also present, is strong evidence against active tuberculosis. 3. The presence of albumin in doubtful early cases of pulmonary tuberculosis helps to support this diagnosis. 4. The test is of considerable value in cases of chronic tuberculosis and emphysema as evidence of active disease.
SYPHILITIC INFECTION FOLLOWED BY LANDRY'S SYNDROME AND LATER BY TABES DORSALIS.

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In a communication to the Société de Neurologie of Paris made on Jan. 8th last upon a case of acute ascending myelitis appearing during the course of secondary syphilis M. Barth and M. André Léé cite a case published by me in 1906. 1 In that case symptoms of a flaccid palsy of the legs had shown themselves in July, 1904, and the palsy had in a few days ascended to the arms and to some muscles supplied by certain cranial nerves. Later the symptom had passed away in the same order in which they had supervened, and six months later the patient was quite well except that he had some slight difficulty in going upstairs. At no time during his illness had there been any sensory disturbances, objective or subjective. The patient had contracted syphilis in 1888 and apparently had been thoroughly treated.

The subsequent history of the patient is interesting. I did not again see him until June, 1907, when he presented himself at the West End Hospital for Nervous Diseases. He told me that since the middle of 1905, the year after his illness, until March, 1907, he had occasionally had pains in the lumbo-sacral region. His legs, which had been left a little weak by the illness in 1904, had completely recovered by the beginning of 1907. The sphincters had been removed but quite recently he had lost sexual power. He had, however, become a parent since his illness in 1904. The patient presented no abnormal physical signs except that of palsy of the sixth cranial nerve. He had, in fact, come to the hospital on account of a diplopia which had manifested itself one week previously. On Sept. 8th it was noted that the right pupil did not perfectly react to light. Towards the end of November, 1907, the paralysis of the sixth nerve had disappeared. He had been treated with potassium iodide and mercury.

The patient did not again come to the hospital until May 25th, 1911. Since the beginning of the year he had suffered from tired feelings and had had neuralgic pains. His gait was now ataxic and he showed Romberg's sign. The patellar and Achilles reflexes were absent. There was blunting of all forms of sensation of the legs as far up as the popliteal fossa. Deep pain and touch sensations of the legs were completely immobile. There was a very slight internal strabismus. Wassermann's reaction was reported to be negative. Since that time the symptoms have remained almost the same, but towards the end of 1912 there commenced to occur an occasional incontinence of urine and the flaccid paresis of the legs. His way of walking had become more waddling, and his gait was now ataxic. On March 12th, 1913, another convolution was admitted. Wassermann's reaction was reported to be positive. The cerebro-spinal fluid contained lymphocytes to the extent of 8 per cubic millimetre. The albumin content was 0·05 per cent. by Aufrecht's method. The patient's condition improves with rest in bed and re-education by Frenkel's exercises, but he quickly relapses.

We have, then, in this case a sequence of syphilitic infection, Landry's syndrome and tabes dorsalis. It might be suggested that the phenomena of tabes were the consequence of a direct lesions in the spinal cord, but we have already shown that the symptoms displayed by the patient in 1904 did not show any sensory abnormality, while the more chronic symptoms which have been gradually disclosing themselves during more recent years do not remotely suggest any degeneration of the anterior horns of the grey matter or of the peripheral nerves or their roots. One can hardly, then, suppose that the symptoms of tabes are a result of the myelitis, seeing that the myelitis was an anterior poliomyelitis, whereas the anterior horns of the gray matter or of the posterior columns. We may therefore presume that the Landry's syndrome was either accidental and had nothing to do with the syphilitic infection, or that the syphilitic infection predisposed to it. In this case reported by Barth and Léé the patient had had a chance six months before the onset of the spinal