

cough, emaciation, and general debility. What struck me first of all, on seeing this patient, was his extreme pallor, notwithstanding the small amount of hæmorrhage that had occurred—certainly not more than two tablespoonfuls of blood. His gums, palate, and conjunctivæ had the appearance of extreme anæmia. On physical examination the right side of the thorax was found to expand much less freely than the left side. This may have been the result of the old pleurisy, as it had occurred on this side. Percussion revealed a note of higher pitch and shorter duration at the outer part of the base of the right lung. The vocal resonance was much increased here, and the other auscultatory sounds were a loud apparently friction sound and moist râles. The other parts of the lungs seemed perfectly free from disease. The patient also complained of pain at what I considered the seat of the disease. As has been mentioned above, for some short time before the hæmorrhage he had complained of losing flesh, night sweats, and general debility. An examination of the sputum was made as soon as it was untinged with blood, and the examination revealed numerous bacilli. Here, then, was a case the chief feature of which was the extreme anæmia, emaciation, and night sweats, associated with comparatively slight local signs and coincident with the presence of numerous bacilli in the sputum.

One other case deserves mention, that of a young man, a watchmaker by trade, who came to me several months ago complaining of pain in the left side, cough, and expectoration. On examination, a friction sound was heard about the middle of the left side at the seat of the pain; crackling was also present; but there was at this time no impairment of the percussion note. The man gradually from this time became emaciated and anæmic, night sweats and extreme debility being also present. A few days after, the above local signs continuing, there was superadded to them a very marked impairment of the percussion note. The patient continued going on from bad to worse, and it was determined to send him off to some country town (Peebles), where he could at least have the advantage of fresh air and milk. Unfortunately, at this time his sputum was not examined. While in the country he gradually improved, gained flesh, and got rid of the night sweats. Several weeks' residence in the country improved him so much that he determined to return to town and resume work. On examining him on his return, the left side was found to be even worse than on his removal to the country, showing that, at any rate, the physical signs had not improved. The percussion note over the whole side, back, and front was much impaired, it giving the impression that the underlying lung was almost solid. At the upper part of the lung tubular breathing, without moist râle accompanying it, was heard, and at the middle and lower parts of the lung crackling indeterminate respiration. His sputum at this time showed entire absence of bacilli, and what seems remarkable was that the man complained of nothing save his cough. I regret that this man's sputum was not examined before his removal to the country, as I should have expected to have found numerous bacilli. At any rate, the absence of bacilli and of general symptoms on his return is sufficiently striking.

I think most of us who have examined the sputum for bacilli will admit to having seen a general improvement in the patient coincident with a diminution in the number of bacilli. Why this should be it is easy enough to imagine, if they have a causal relation to tubercular disease. It appears to me to be an explanation accounting for the grave symptoms of phthisis pulmonalis apart from the local signs, if we imagine the bacilli to be the origin of some product which, on admission to the blood system, acts as a poison either on the nervous centres, causing vaso-motor and other disturbances, or perhaps acts directly on the blood itself, destroying its hæmoglobin (pre-tubercular anæmia). At any rate, there seems reason to believe in the following assertions:—1. That in those cases of phthisis pulmonalis with grave constitutional symptoms, unaccompanied by local signs or commensurate local signs sufficient of themselves to account for the symptoms, the chances are that the bacilli are present in greater or less quantity. 2. That in those cases where the constitutional symptoms are slight and the apparent local signs great, the chances are that the bacilli are more or less absent. 3. That the first effect of the diminution of the number of bacilli in the sputum will be an amelioration of the general disturbance. Our aim, then, should be directed towards the destruction of the bacilli

when present, and preventing them developing when the soil is suitable.

I have not spoken of temperature, as my observations are not yet ample enough to draw any conclusion therefrom.

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SEQUEL TO A CASE OF MYXŒDEMA IN A WOMAN AGED SEVENTY-SIX.

By C. W. SUCKLING, M.D. LOND., M.R.C.P.

IN THE LANCET last year I published an account of a case of myxœdema in a woman aged seventy-six. Since then the patient remained in the Birmingham Workhouse Infirmary *in statu quo* until Feb. 26th last, when my attention was drawn to her. I found that she was semi-comatose, could not speak or be made to respond in any way to questions put to her. The pulse was 36 per minute, and very feeble; the respiration 16, stertorous; the temperature was 95°. On the 27th the patient was completely comatose. The pulse was still 36; the respirations 12 per minute. The temperature could not be taken with the ordinary clinical thermometers, which were not graduated below 95°, the mercury not rising to within an inch of the first mark on the glass. A thermometer used for taking the temperature of baths was separated from its iron frame, on which was the graduation, and the bulb was placed under the tongue for half an hour, the level of the mercury being marked on the stem with ink. The thermometer was again placed in its frame, and the registration was 76·5°. The next day the pulse was imperceptible at the wrist, the heart-beats being 20 per minute. The temperature, taken the same way as the day before, was 70°. During the day it was taken several times, and varied from 66° to 70°. The patient died the same night. The bath thermometer, immersed in warm water, at the end of three minutes registered 99°, a clinical thermometer 98·5°, so that we must not conclude that the patient's temperature was exactly as recorded. Still, allowing a degree or two, the temperature in this case must be one of the lowest ever recorded during life. Dr. Barling, Professor of Pathology at the Queen's College, has kindly undertaken to report a full account of the necropsy.

Birmingham.

THE CONNEXION BETWEEN GLYCOSURIA AND BILIARY OBSTRUCTION.

By W. T. WYATT, M.A., M.D. OXON.

It has been demonstrated by Dr. Wickam Legg, and confirmed by Von Wittich, that ligature of the bile-ducts causes the disappearance of glycogen from the liver, and that after ligature glycosuria cannot be produced by puncture of the floor of the fourth ventricle or section of the cervical sympathetic. It is presumed that the retention of bile within the liver interferes with the nutrition of the hepatic cells, and so prevents them from carrying on their natural function of glycogen formation.

The following clinical case appears to me to support the conclusions drawn from the above-mentioned experiment. A lady, aged sixty, has for some time suffered from glycosuria, and latterly albumen has been present in addition; the amount of sugar excreted usually ranges from ten to twelve grains per ounce, and no material alteration in this quantity occurred when the urine became albuminous. The urine has been always highly saccharine, even when a strictly nitrogenous diet was enforced, a symptom pointing to the fact that a too rapid metamorphosis of hepatic glycogen was the probable source of the excess of sugar in this case. A short while ago this patient became jaundiced, the urine containing both biliary acids and colouring matters, and with the appearance of the jaundice the sugar diminished from its usual amount to a hardly perceptible trace, Fehling's reagent, the picric acid and indigo carmine tests, giving almost negative results. The disappearance of the sugar could in no way be accounted for by alterations in diet, for the appetite and manner of living remained the same as usual. In this case, however, there was undoubtedly