TWO CASES OF ARTIFICIAL PNEUMOTHORAX.

BY

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THESE cases are reported as typical instances of the effect of artificial pneumothorax, not merely in saving the lives of patients who were in an apparently hopeless condition, but in restoring them to comfortable and useful life.

CASE I.

F. H. was admitted to the Newcastle-upon-Tyne and Northumberland Sanatorium on August 30th, 1916. He gave a history of three months' cough with expectoration, night sweats, and one small haemorrhage, together with loss of weight and persistent tiredness. On admission his weight was 9 st. 8½ lb., and he was thin, pale, and languid. There were signs of active disease in the left upper lobe, and tubercle bacilli were present in the sputum. The temperature was found to be slightly elevated, and it remained so for six weeks, when it fell sufficiently low for the patient to get up for very short periods daily. A fortnight later, however, it again rose, and there was further necessity for rest in bed.

This condition of a sort of smouldering temperature, ready to rise above a normal range on the least departure from complete rest in bed, continued until January, 1917, when there was a flare-up, the temperature reaching 102° F., and remaining high for a week. It subsequently settled down to its + or - 99° F. range, and kept the man in bed until March, 1917. In February signs of cavitation in the left upper lobe appeared, and in March haemoptysis was persistent, despite treatment. Although the temperature was not very definitely raised the general condition of the patient now became very poor. There was much sputum, haemoptysis, profuse night sweats, and the weight was down to 9 st. 4½ lb.

The outlook appeared to be very gloomy, and it was decided to attempt to induce an artificial pneumothorax on the left side. On March 29th the left pleural space was found without difficulty, and 300 c.cm. of nitrogen were introduced. There were further introductions of gas on the third, fifth, and fifteenth days, by which time a pressure of +4 to +9 was obtained. Subsequently the temperature fell to a definitely normal range, being well down on an average to 97.4° F. in the mornings and 98.4° F. at nights. Haemoptysis, night sweats, and cough disappeared, and sputum was diminished to a minimum. Graduated exercise was commenced after a fortnight, and by June the patient was up all day, and walking six miles daily with normal temperatures and without fatigue, and the weight had increased to 9 st. 13 lb. Before leaving the sanatorium, on July 26th, 1917, he was working daily in the garden.

After the first three introductions of gas, refills were performed on an average every three weeks. The technique employed was that ordinarily in vogue, and no description is necessary. Since his discharge from the sanatorium the patient has continued to come to the Northern Counties Hospital for Diseases of the Chest about once in three weeks for refills.

In December, 1917, physical signs showed the presence of fluid in the pleura. The appearance of this coincided with a slight rise of evening temperature; but this was never higher than 99.6° F., and it returned to normal after four days. The quantity of fluid in the pleura was never large, and it was not thought necessary to draw it off. It was absorbed very gradually, and by the end of May it seemed to have disappeared. While it continued, the capacity of the pleura for air was naturally diminished. In January 350 c.cm. of air was sufficient to raise the mean intrapleural pressure from -7.5 to +7. In June the absorption of fluid had so far restored the pleural capacity that 700 c.cm. of air were required to raise the mean pressure from -8 to +6.

This patient has now been for a full year doing his work as an inspector in the post-office. Since he left Barrasford he has had no expectoration, and he very rarely coughs. His capacity for exertion continues to increase. This may be taken as a fair illustration of the value of artificial pneumothorax in the treatment of phthisis in conditions presenting but slender chance of relief by ordinary hygienic methods. It is only by the study of individual cases that its value can be fairly appraised. It does not lend itself well to the statistical method. Artificial pneumothorax begins where other forms of treatment leave off in despair.

Compare with this case another.

CASE II.

Miss R. first came under observation in March, 1915. The clinical aspect of the case was strongly suggestive of tubercle, but physical signs were ill defined and repeated examinations of the sputum gave negative results, until in July, 1917,

numerous tubercle bacilli were found, and at the same time diminished resonance and crepitations appeared in the right upper lobe.

The patient went to the country from August 20th to September 15th, and returned with the general condition much improved, but with signs of cavity in the right upper lobe.

On September 29th a pneumothorax was induced on the right side, in the Hospital for Diseases of the Chest.

At the end of November she went to the sanatorium at Barrasford, where the pneumothorax was continued. Since she left the sanatorium in March refills have been done about once in three weeks at the hospital. A very serious complication in this case was a most obstinate diarrhoea which continued during the whole of the time that the patient was in the sanatorium, giving rise to more than a suspicion of tuberculous ulceration of the intestine. This diarrhoea ceased, however, in May of the present year and has never returned. The successful remedy seemed to be a pill of tannic acid gr. 2, pulv. opii gr. 1, ext. hyoscyam. gr. 1.

A point of great practical importance is that the pill must be coated with keratin, which only dissolves when the intestine is reached. Hence the opium and tannin do not affect the appetite and digestion, their activity being thus suspended until the point is reached where it is most required.

Since the diarrhoea has ceased the patient has greatly improved. She is now doing full work as a managing clerk, and is much less readily fatigued than she used to be. She still has cough and some expectoration, but both are less than they were.

Of course we rejoice with trembling over cases like these. It would be absurd to deny the possibility of relapse—but no treatment of any disease makes the patient immortal. We claim a valuable success if we can secure for our patient a period of useful and comfortable life. If that period is long, the success is a great one; if short, it is still real success. Whether the patient eventually succumbs to a recurrence of the same disease or to some other is a matter of purely academic interest.

FILARIASIS AMONGST AUSTRALIAN TROOPS.

BY

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THE following four cases may be of interest, in that their history suggests that they were all infected in the same neighbourhood, indicating some localized centre of infection; to my knowledge, no other cases have been reported amongst the Australian troops.

The first two cases were admitted to this hospital diagnosed filaria, the diagnosis in each case having been given by the man himself. In the one case there was a well-marked lymph scrotum, with an acute attack of lymphangitis at the time of admission. The patient was a middle-aged man (40 to 50), and to his own knowledge had suffered from filariasis for twenty years. The local condition improved with hot fomentations, purgation, and rest in bed. The second case was admitted with hæmatoclyuria and some pain and tenderness over the bladder. In this case the history extended to eight years (1909), when the embryos had been found in the peripheral circulation. In neither of these cases were any embryos found in the blood stream, although repeated examinations were made. This may perhaps be accounted for by the fact that in both cases, at the time of observation, there was present evidence of acute lymphatic obstruction.

The third case was admitted with a diagnosis of nephritis. He said that he had been passing milky urine for two weeks. There was no pain, tenderness, or swelling. The urine was typically chylous; the obstruction seemed to be purely lymphatic. In this case the embryos were fairly numerous in the peripheral circulation, after 9.30 p.m., two or three being present in each small drop, the thin film method of examination being employed.

The fourth case showed only enlarged glands in both groins, most marked on the right; at intervals they became tender and more swollen. The onset was indefinite, the patient, at present 31 years old, having noticed the tender swellings when he was a boy at school. He also complained of a feeling of soreness deep down in the pelvis, and a pain in the lumbar region. There was no history of chyle or blood in the urine, and there have been