H. T. Butlin. I performed the operation on March 3rd, 1902. The patient made a good recovery, was afterwards married and has had four children. I saw her yesterday when she was in good health and had not suffered from any recurrence of haematemesis.

CASE VI.

A boy of 15 years with a cyst between the mucous and muscular layers of the pyloric end of the stomach. I performed pylorotomy on July 17th, 1906, and reported the case in the *Lancet*, August 18th, 1906.

Perhaps the most disappointing cases are the gastrostomies for the relief of stricture of the oesophagus, which is usually due to malignant disease. These cases are left until the last moment. The patients have experienced much suffering, and as a result of insufficient food have lost a large amount of flesh and vitality. When I have been able to operate upon them early I have succeeded in relieving their distress and prolonging their lives for as much as six months. I cannot claim to have obtained for them a longer respite. The modified Witzel's operation which I perform does not allow any regurgitation of food.

Contrast this experience with the medical treatment of these cases. Those who suffer from pyloric obstruction remain invalids. They continue to exist upon patent foods, they swallow large quantities of medicine, and they use up many hours of their doctor's time in a vain endeavour to obtain relief. Some of them indulge in stomach lavage. They lose weight, amounting in some cases I have seen to five or six stone, more than half their normal weight, and they ultimately succumb, after suffering untold misery. They are found in every consulting room, they go from doctor to doctor. Disappointment drives them to quack medicines, and ultimately, often when it is too late, they drift into the hands of the surgeon.

I do not suggest that all these cases should be operated upon without medical treatment, but I do claim that my results justify you in urging these people to consult a surgeon when you find that medical treatment fails, and I would emphasize the necessity of following this course before the condition is so far advanced as to render surgical intervention unduly dangerous, if not hopeless.

A CASE OF VALVULAR DISEASE OF THE HEART, SHOWING UNUSUAL POWERS OF PHYSICAL ENDURANCE.

BY

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EVERY medical officer has come across soldiers who, in spite of evident organic disease of the valves of the heart, have been able to carry on at the front, and have only finally been invalidated for some other condition; but the following case is an example of such unusual physical power that it seems worthy of being put on record:

Lieut. A. B., aged 25, infantry officer, was invalidated to England on account of slight "gassing," and two months later was seen at a convalescent hospital, still complaining of depression, especially in the mornings, of weakness, and of shortness of breath on climbing hills.

History.

He stated that he had never been ill except when, at the age of 13, he suffered from an attack of rheumatic fever, and his mother had made him "go carefully for twelve months afterwards." He had been an athlete all his life, and won many prizes in this capacity at school. At his university he was captain of both cricket and football teams. During the last four years he had developed specially the 100 yards race. He had been in the army for about three years, and had never been sick or laid up, except as follows later.

Last October, while in France, he won the 100 yards championship of his division, and also the broad jump, doing the former in ten seconds, and attaining 22 ft. 6 in. in the latter. He was presented by the G.O.C. with a gold medal as the champion athlete of the whole corps. During last winter he was captain of his battalion football team, and played in every game during the season.

In November last he was blinded for two hours by the near explosion of a shell, and since then his right eye has not been as good as formerly, but he carried on all military duties and continued, as already stated, to lead his football team until the spring, when he was slightly gassed. He was then invalidated to England, though unwilling to leave France.

Condition on Examination.

The patient was fairly fit in appearance, but stated that he was often depressed in the morning. If he exerted himself much he suffered from palpitation and shortness of breath. All these symptoms only dated from the gassing. The pulse was moderate in rate and quite regular, but of water-hammer type; no distinct capillary pulse could be made out. The liver was not enlarged, and there was no oedema. On percussion of the heart the right border was found to be one inch beyond the edge of the sternum. The apex beat was felt heaving powerfully in the sixth intercostal space in the nipple line. On auscultation a loud double aortic murmur was heard and also a very evident double mitral one.

The condition was evidently one of aortic incompetence, and possibly stenosis (although the systolic murmur here might have been due to dilatation of the root of the aorta), and of mitral leakage and probable stenosis, although the presystolic murmur might have been of the Flint type. The heart was certainly considerably hypertrophied.

Dr. Lewis, in his paper in the *BRITISH MEDICAL JOURNAL* of December 14th, p. 647, on Medical Reports on Soldiers discharged from the Army for the conditions known as "D.A.H." and "V.D.H.," says that "In some patients with aortic disease exercise tolerance is perfect. Many soldiers have fought in the front line with this lesion and without mishap." He continues: "But these are cases in which the lesion, as judged by the state of the pulse, is slight and in which there is no material enlargement or other complicating factor."

Every one has seen cases of aortic regurgitation of this "slight type," who have stood military service for long, and I have notes of a number who have endured even unusual strain without a breakdown, but the above case is out of this class. The patient would undoubtedly come under Dr. Lewis's class of "developed aortic disease"; yet he not only stood the stress of active service in the front line for years and was at last only invalidated on account of gassing, but actually outvalled all his fellows as an athlete. His reserve heart power must have been greater than that of most men having sound hearts.

The case emphasizes the correctness of the view that has so often been urged in recent years by Sir James Mackenzie and others, that everything depends upon the state of the heart muscle. This patient had evidently an exceptionally strong and sound myocardium.

The reason why most cases of chronic V.D.H. break down is not so much on account of the presence of the valvular lesion as because the infection which caused the damage of the valve at the same time invaded the heart muscle more or less. In the case here recorded the rheumatic invasion at the age of 13 must have been unusually limited to the endocardium.

Nevertheless, valvular lesions, whether causing stenosis or incompetence, are not only always *loci minoris resistentiae* against further infection, but must also, by their disturbing influence upon the smooth onflow of the blood, throw extra work on the heart muscle, and I for one do not go so far as some in the modern tendency to ignore such lesions. It is not my intention here, however, to go further into this debatable ground, but rather merely to put on record what appears to be a case of very exceptional endurance of a hampered heart.

NASAL DIPHTHERIA AND THE EPIDEMIC OF INFLUENZA.

BY

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It seems to have escaped the notice of those who have published notes on the prevailing epidemic of influenza that a large number of patients supposed to be suffering from that disease are in reality suffering from nasal diphtheria.

Feeling convinced that the heavy mortality during the epidemic could not be due to influenza pure and simple, I began to examine certain cases for nasal diphtheria, and found that many cases from which I took nasal swabs gave positive results. In many a provisional diagnosis of influenza had been made, and they were apparently convalescent when the swabs were taken. Others, at the onset, showed signs which indicated the trouble, and in others again the swabs were taken almost at random

from patients who walked into my surgery complaining of "induenza" and not apparently very ill. All the swabs were examined for me at one of two recognized pathological laboratories.

The following are short notes on a few selected cases:

Case 1.—A child about two years old was brought by its mother. It was pale, listless, and evidently seriously ill. No physical signs could be found in the chest or throat. A swab taken from the nose was found to be positive for diphtheria.

Case 2.—A Royal Marine who came to my surgery said he was suffering from "flu." I took a swab from his nose and told him to come to me again the next day. He did not return, but the swab was found to be positive. A few days later I received an urgent letter from his C.O. saying that the man had returned to duty and had related what had happened, and I gave particulars as requested, but so far nothing more has been communicated to me on the subject.

Case 3.—A soldier on leave, seen in bed, complained of headache and nose bleeding. There was considerable pyrexia. The throat was red, but there were no physical signs in the chest. A swab was taken from the nose. After a day or two dullness and fine crepitations were found at the left base, and a positive report was returned by the pathologist with regard to the swab. The sputum was rusty and was found to contain Klebs-Loeffler bacilli.

Case 4.—A soldier complained of pain in back and legs and cough. There was a mitral systolic murmur and the heart was somewhat dilated. He had an up and down temperature (maximum about 102°) for a few days. A swab taken from the nose was found to contain diphtheria bacilli.

Case 5.—A soldier, who had been gassed, complained of sore eyes and throat; the tongue was furred and the breath foul. He was pale and very ill. He had an up and down temperature (maximum about 103°), and in a few days began to develop phlebitis in the left leg. A swab taken from the nose was found to contain Klebs-Loeffler bacilli.

Case 6.—A soldier, who had been gassed and was suffering from ophthalmia, had pyrexia reaching 104°. A swab was taken from the nose and diphtheria bacilli found.

Case 7.—A soldier, complaining of influenza, had a mitral systolic murmur. There were a few râles in the lungs, and he expectorated rusty sputum. There was moderate pyrexia which subsided after a few days. A swab was taken from the nose and diphtheria bacilli found.

Case 8.—A man, whose illness had been diagnosed influenza, complained of sore throat. A swab taken was found to contain *B. diphtheriae*.

These are only a few typical cases out of a large number of similar ones which have come under my notice, and I am persuaded that a large number of the deaths recorded as being due to influenza during the present epidemic were due to diphtheria.

Some show a tendency to make light of nasal diphtheria, but there can be no doubt that it is a condition which is fraught with grave danger not only to the patient, but also to others with whom he may come into contact, and it is all the more dangerous because, as I gather, there are comparatively few practitioners who look for it.

Some years ago there was in this town an epidemic of mumps. In all cases that came under my notice I took swabs, and in many proved that the real cause of the swelling of the glands was diphtheria. I was called to see a boy who had died suddenly. No doctor had seen him, but his mother had been treating him after her fashion for mumps. A swab taken from the nose after death gave a positive result for diphtheria. About the same time I was called to see a baby who had died suddenly. The history was not very definite. The child had been ailing a few days, but its condition had not given much anxiety and no doctor had been sent for previous to its death. A swab taken from the nose was found to contain diphtheria.

At a discussion on influenza at a meeting of the Royal Society of Medicine on November 13th, reported in the BRITISH MEDICAL JOURNAL of November 30th, p. 603, Dr. B. H. Spilsbury said that

He regarded the condition as a primary infection of the air passages by Pfeiffer's bacillus, the failure to find this organism in 40 per cent. of his *post-mortem* cases being due either to the search not being sufficiently thorough or to the organism having disappeared before death.

It would be interesting to know whether in those *post-mortem* examinations Dr. Spilsbury examined the nasal fossae, and, if so, whether he examined them for the presence of the *Bacillus diphtheriae*.

SPONTANEOUS PNEUMOTHORAX IN THE COURSE OF INFLUENZAL PNEUMONIA.

BY

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THE occurrence of pneumothorax in connexion with an attack of pneumonia or bronchopneumonia is so rare that the following case is worthy of record:

F. M. K., aged 38, a strongly built man, a mechanic and a good wrestler, was admitted to hospital on October 31st, 1918, with a temperature of 103.6° F., pulse 96, and respiration 28. He had apparently been laid up with influenza since October 26th. Two grains of quinine were ordered three times a day, and a mixture containing some sodium salicylate was given also. On the morning of November 2nd slight crepitation was heard over the lower parts of both lungs behind. The temperature was 103° F., pulse 100, respiration 24. The urine contained a trace of albumin and some hyaline and cellular tube casts. On November 3rd there was marked dullness on percussion over the back of the lower lobe of the left lung, and on November 5th there was much crepitation over the same area. From the time of admission to November 5th the temperature varied between 101° and 105° F., pulse 92 to 120, respiration 24 to 36.

On the early morning of November 6th the temperature was only 98.4° F., but the pulse was 128, and the respiration was 48. At 11 a.m., when I examined him, he was sitting up in bed, extremely dyspnoeic, cyanosed, and anxious. The cardiac apex beat was extremely displaced to the left; the right side of the thorax was resonant, but moving much less than the left side. On auscultation of the right side the breath sounds, heard rather faintly, were of somewhat amphoric character. Evidently there was pneumothorax on the right side (previously the better side of the two), though the bell sound was absent. On introducing a cannula into the right pleura, air bubbled out from the end of the attached tube (under water); more air was removed by aspiration. Normal breath sounds were then heard over the right side of the front of the chest, the heart was less displaced, and the extreme dyspnoea was partially relieved. In the afternoon the temperature was 103° F., pulse 120, respiration 40. On the morning of November 7th there was evidently relatively little air remaining in the right pleura, but decided dullness in the right infrascapular region indicated the presence of fluid pleural effusion. The cardiac apex beat was still moderately displaced to the left. The temperature was 102.4° F., pulse 134, respiration 40. There was a tendency to delirium. In the afternoon the temperature was 102° F., pulse 130, respiration 42. The patient died at about 6 o'clock on the following morning (November 8th).

The necropsy showed fibrinous deposit with a moderate quantity of sero-purulent fluid in both pleurae. The greater part (lower portion) of the left lung was solid (red hepatization) from pneumonia; there were likewise in that lung a few small scattered abscesses. There was no consolidation in the right lung, but in the lower part of the upper lobe were several small abscesses, some of which were subpleural—that is to say, situated quite superficially beneath the visceral pleura. I did not see the actual opening, but doubtless it was the bursting of one of the superficial (subpleural) abscesses which gave rise to the pneumothorax. There was no free air in either pleura, and the heart was not obviously displaced. The heart was slightly hypertrophied (weighing 13 oz.), doubtless as a result of the patient's previous athletic habits.

A case of pneumothorax occurring in connexion with an attack of pneumonia was recorded by Ménétrier and Pascano in 1915,¹ but in that case (a man aged 54) according to the findings at the *post-mortem* examination, the pneumothorax was probably due to the bursting of a superficial emphysema bulla during an attack of lobar pneumonia. Another case, in a bricklayer aged 40 years, was recorded by C. B. M. Aldridge in 1915.² The patient recovered. Recovery also took place in the case of a man, aged 35 years, described by R. G. Hann.³ Hann adds summaries of several cases previously recorded, and quotes Black's collection of 918 cases of pneumothorax, in which not a single one is ascribed to pneumonia. Out of 7,868 cases of pneumonia, collected for statistical purposes by the Royal Society of Medicine, pneumothorax was a complication in three cases only, two of them proving fatal.⁴

At a meeting of the Philadelphia Pediatric Society on January 12th, 1909,⁵ C. H. Weber and C. Y. White reported the case of a child, aged 3½ years, suffering from pneumonia, in whom pneumothorax occurred on the eighth day of the disease without any paroxysm of coughing or other unusual effort. The necropsy showed a perforation near the lower border of the upper lobe of the left lung. The neighbouring pulmonary tissue was consolidated by pneumonic infiltration.