intercostal neuralgia, which was subsiding. Otherwise he was fit, with an occasional morning expectoration of about half an ounce.

Case 3.—A girl, aged 14, was referred by Professor Tylecote. She had long-standing cough and sputum, which was not offensive. Several weeks' postural drainage failed to diminish the amount of the expectoration, which was from three to four ounces daily. Lipiodol demonstrated well-marked tubular bronchiectasis in a collapsed left lower lobe. Her recovery after lobectomy was uneventful, and she did not develop a bronchial fistula.

Case 4.—This patient was sent to me by Mr. Burt Hamilton, under whose care she had been for several months. After regular postural drainage and occasional bronchoscopic aspiration her sputum had diminished to vanishing-point, and her general condition was so good that on her transfer to one of my beds I sent her home. Within a week she returned

FIG. 5.

with the typical foul expectoration, and asking for operation. The case was very suitable for lobectomy (Fig. 4 on Plate), and after the operation her recovery was without incident. The photograph reproduced on this page (Fig. 5) shows the operation scar and the absence of deformity.

Such, then, are the surgical measures by which bronchiectasis may be attacked. The problem which the disease presents is a difficult and many-sided one. I hope, however, that enough has been said to show that the day of helpless inactivity is past, and that it is possible to restore to health and self-respect, not a few of those who are afflicted by a condition which is crippling, frequently lethal, and all too often repulsive, not only to those with whom they come in contact, but to the unfortunate sufferers themselves.

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The annual epidemiological report, giving corrected statistics of notifiable diseases in various countries, for the year 1932 has now been published by the Health Organization of the League of Nations. The authorized agents in Great Britain for the publications of the League are George Allen and Unwin, Ltd., 40, Museum Street, London, W.C.1.

ATHEROMA OF CORONARY ARTERY AND MYOCARDIAL FIBROSIS

BY

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(With Special Plate)

The close causal relation between disease of the coronary arteries and myocardial degeneration has received much attention¹ in recent years. The following case, which was very baffling, is both illustrative and worthy of note.

History of Case

A coal miner of 25, who had previously enjoyed excellent health, developed a cough in January, 1934. Gradually some dyspnoea on exertion became apparent in the following months, but he was able to walk about. On April 3rd he suffered from acute haemoptysis of bright red blood, and Dr. Landsborough, his medical attendant, had his chest examined by x rays the following day, and sent him with the film to the tuberculosis dispensary.

The patient at examination on April 5th was a healthy-looking vigorous adult with a slightly pale countenance. He was a little feverish, the temperature being 98.9° F. and the pulse rate 96. Apart from some crepitations in the left axilla, system examination revealed no abnormality. The skiagram of the chest showed rather a large heart shadow, with increased density of lung shadow in the mid-zone of the left lung (see Plate, Fig. 1). Sputum examination failed to reveal tubercle bacilli. The family history was good, all near relatives being alive and well.

Progress in Sanatorium

The patient was admitted to Heathfield Sanatorium for observation on April 10th. He remained afebrile, but showed a pulse rate ranging from 84 to 96. About one ounce of mucoid sputum was expectorated daily at first, but this quantity gradually increased to three ounces within two months. On June 20th the patient's condition was much as on admission, except that the apex beat was now a little to the left of the normal limit, the trachea deflected to the left, and the chest expansion poor. A week later, when he was up for six hours daily, he complained of pain in the left side, due to friction over the left base in the mid-axillary line, and there was a slight tinge of blood in the sputum. He was put back to bed for a week, and gradually allowed up to the extent of three hours daily. His weight remained steady all this time.

On August 7th pain recurred in the left chest, and there followed about ten days of mild pyrexia (99° F.), for which complete rest in bed was resumed. The entire left lower lobe yielded impaired resonance on percussion, with feeble breath sounds and occasional crepitations. Pleural friction was noted over the right lung anteriorly on August 13th. A week later the patient became slightly cyanosed, and the respiratory rate rose suddenly to 44 for two observations, and thereafter ranged from 24 to 32 per minute. The right chest expanded poorly, and bronchial breathing was evident in the mid-zone of the right lung posteriorly. There was then manifest for the first time a soft systolic murmur at the apex, which was not propagated.

On August 28th the patient began to go downhill. He expectorated blood in the sputum, at first a tinge only, but later copious quantities of bluish-red frothy blood. The skin and conjunctivae became jaundiced, cyanosis was very evident, and the liver enlarged and painful. The heart dullness was much enlarged in all directions, the apex beat being scarcely perceptible and the cardiac sounds of very poor quality. A further x-ray examination was made the following day. The film of the chest (see Fig. 2 on Plate) showed a colossal increase in size of the heart shadow, and an upward bulging of the liver shadow. Two days later there was slight anasarca, and the blood pressure was 70/64. The urine revealed no abnormal constituents in solution or suspension, a feature maintained throughout: Wassermann reaction not done.

The patient began then to complain of strangulation, and on account of a tentative diagnosis of pericardial effusion an attempt was made on September 2nd to perform paracentesis of the pericardium. No fluid was obtained, but owing to the evident distress of the patient the attempt was not persisted in. Thereafter the patient became more dropsical, cyanosed, and breathless, and died fairly suddenly on September 6th.

Post-mortem Findings

At necropsy the body presented to external examination generalized oedema and pallor of the skin. The liver dullness noted in life had markedly diminished.

Thorax.—There was free fluid in the pleural cavities, and the lungs presented an extreme appearance of chronic venous congestion (brown induration). The pericardium contained about six to eight ounces of straw-coloured fluid, and the enlarged heart was in diastole.

Abdomen.—The stomach and intestines were normal. The liver was slightly enlarged, and showed the characteristic nutmeg appearance of chronic congestion. The spleen and kidneys were also in a state of chronic congestion. No infarcts were seen in the organs.

Heart.—This was in a state of dilatation, and the muscle flabby. On the anterior aspect there was a broad, whitish patch of fibroid change. The heart, on being opened, was found to be full of clot, some of which was easily washed away, leaving in the left ventricle a large amount of semi-organized tough clot adherent to a broad area of the myocardium and, more or less filling the cavity of the left ventricle. The valves were of normal appearance, although dilated. The myocardium of the left ventricle was thinned at the site of attachment of the clot. A patch of atheroma was visible on the aorta at its origin. A photograph of the interior of the left ventricle is reproduced (Fig. 3).

Pathologist's Report

The heart was sent to Dr. J. Ferguson Heggie of the Pathology Department, University of Glasgow, for examination, and he reported as follows:

"The heart is rather soft. The left ventricle is much dilated, especially in the apical portion, where the wall is thinned and stretched. There is much fibrosis in the left ventricular wall in its anterior distal part, with atrophy of the myocardium, hence the dilatation. Over the fibrosed area there is much laminated thrombus, part of which is old and organized, and part of which (superficial) is more recent. The valves are healthy; the remainder of the left ventricle and the remaining chambers are slightly dilated, but free from any gross lesion. The area of the left ventricle which is fibrosed is that supplied by the descending branch of the left coronary artery; this vessel shows marked reduction of the diameter of the lumen at a point one inch from its origin. At this point there is an atheromatous lesion occluding the greater part of the lumen, while in addition, more superficially, a patch of non-specific fibrosis of the epicardium constricts the vessel from without. The remaining coronary vessels show early atheroma, with little or no reduction of their lumen. Histological examination confirms the character of the coronary lesion and the per-arterial starvation atrophy of the myocardial cells, with resulting fibrosis of the wall of the left ventricle. There is no histological evidence of infarction of the ventricular wall in the affected region."

Summary

We report a case in a young adult of primary atheroma of the left coronary artery, with resultant fibrosis of the myocardium of the left ventricle and the formation of thrombus in the ventricle during life. The lack of infarcts is perhaps explained by the partial organization of the clot.

We are indebted to Dr. A. G. Brand for the two x-ray plates reproduced herewith, and to Dr. J. F. Heggie of the Pathology Department, University of Glasgow, for the pathological report.

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CARCINOMA OF THE SUPRARENAL CORTEX ASSOCIATED WITH HYPERTENSION

BY

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(With Special Plate)

The following case of suprarenal tumour has some interesting features which make it worth recording.

Case Report

A woman, aged 30, was admitted to the Glasgow Royal Infirmary on August 9th, 1933, with the following history. Nine weeks before admission she developed a tingling sensation in the left arm and in the left side of the face without marked loss of power. This persisted, and two weeks before admission she found when she awoke one morning that she had lost the power of her right arm and leg. She regained the power of her leg, but her arm remained weak. Her eyesight had been failing for three weeks prior to admission. No previous illnesses were noted.

On admission the patient was found to be very obese, with a florid complexion and marked hirsuties on the upper lip and side of face. There was a right-sided facial paralysis, and the right arm and leg were weakened. The reflexes were normal. The heart was enlarged and the sounds accentuated, but pure in type. The blood pressure was—systolic 210, diastolic 120; the pulse rate varied between 84 and 116. There was no abnormality in the respiratory and alimentary systems. Ophthalmoscopic examination showed neuro-retinitis, with many haemorrhages and much exudate in both fundi. The Wassermann reaction was negative. Blood urea was 27 mg. per cent. There was a trace of albumin in the urine all the time the patient was in hospital, and also a quantity of sugar, which varied between 2.1 and 8.75 per cent.

The case was diagnosed as one of cerebral tumour, and was transferred to the surgical house, where, on September 1st, 1933, under local anaesthesia, a decompression operation was performed in the left parietal region. The patient became comatose soon afterwards, the temperature rose steadily to 107° F., the pulse to 160 per minute, and death took place the following day. A post-mortem examination was carried out thirty-six hours after death. The body was noted to be that of a very obese, youngish woman. Growth of hair was marked on the upper lip and on the side of the face.

POST-MORTEM FINDINGS

The pericardium was normal. The heart weighed 600 grams, and showed dilatation of the right ventricle, with well-marked hypertrophy and slight dilatation of the left ventricle. The tricuspid and mitral valves were normal, but their rings were slightly dilated, taking four and three fingers respectively. There was atheroma of the aorta, with multiple yellowish and white patches of thickening, and some calcareous deposit in places.

The pleurae were normal; the right lung weighed 700 grams, the left 520 grams, and both showed a very early bronchopneumonia. There was no abnormality in the trachea or oesophagus. The peritoneum and the stomach and intestines were normal, although there was a considerable deposition of fat around all the abdominal organs and in the mesentery. Marked post-mortem changes without other abnormality were seen in the liver, which weighed 1,600 grams. The gall-bladder, the spleen (which weighed 165 grams), and the pancreas were normal, as also were the kidneys (right 195 grams, left 185 grams), apart from post-mortem decomposition.

The larger part of the right suprarenal was replaced by a cystic swelling, which was roughly circular, and measured 3 cm. in diameter and 1.5 cm. in thickness. The left suprarenal appeared, if anything, slightly smaller than normal. A piece of bone had been trephined from the left parietal region of the head and replaced. The brain weighed 1,240 grams. There was a recent softening lying in the region of the basal nuclei of the left side, 7 mm. in diameter, and involving the

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FIG. 1.—(G. L., 4/4/34.) The enlarged heart shadow and increased density of the left mid-zone is evident.

FIG. 2.—(G. L., 29/8/34.) The heart enlargement is now colossal and nearly obliterates the lower half of the left lung.

FIG. 3.—(G. L., 7/9/34.) Interior of left ventricle, showing extensive thrombus (T) adhering to the thinned wall.

ALEXANDER LYALL: CARCINOMA OF SUPRA-
RENAL CORTEX ASSOCIATED WITH HYPERTENSION

Suprarenal tumour showing typical giant cell. ($\times 200$.)