surface of some of the cut glands a quantity of milky fluid could be scraped away.

The tissue of the left lung was considerably congested throughout. The upper part was emphysematous and full of a frothy fluid; the lower lobe was quite solid, of greyish mottled red and white colour, and in it the bronchi were filled with pus, while from the cut section there exuded a dirty gray purulent fluid.

The liver somewhat granular and nutmeg on section.

The stomach and the bowels were rather contracted, and were almost empty, containing a little mucus and pulpy food.

Kidneys firm and larger than normal; the capsule very adherent, the surface granular and tearing away with the capsule. Section was also granular, and the cortical substance somewhat increased in amount throughout.*

Suprarenal capsules were natural, as were also the pelvic organs.

Spleen firm in texture, of moderate size, and of pale purple colour.

Larynx presented a normal appearance.

The left recurrent laryngeal nerve was pressed upon by one of the enlarged glands.

The brain presented nothing noteworthy, except a slight œdema in the subarachnoid membrane.

The aorta was normal. The venæ cavæ was distended with blood.

There was a slight convexity of the spine to the right in the dorso-lumbar region.

A SERIES OF CASES OF MALIGNANT TUMOUR OF THE LUNGS.

UNDER THE CARE OF DR. R. PERRY,

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Reported by G. ROTHWELL ADAM, M.B., C.M., Resident Physician.

THESE three cases, occurring within a comparatively short period, illustrate many of the symptoms of malignant tumour involving the lung. In all of them the diagnosis was confirmed by a *post mortem* examination, for notes of which we are indebted to Dr. Foulis' report book.

* During her life the urine was scanty, loaded with lithates, but otherwise normal.

Case I.—malignant tumour involving right lung.—J. B., æt. 25 years, a labourer, was admitted October 25, 1877, complaining of pain in the chest and shortness of breath. The patient has been complaining of the pain and dyspnœa for the last ten months. He first noticed a cough, but had no expectoration; the cough has gradually increased. About three weeks before admission he expectorated about half an ounce of blood. Formerly he perspired freely, but now the skin is hot and dry.

Physical Examination.—There is dulness on percussion on the right side of chest, extending from the apex to the nipple. Auscultation shows that the respiratory murmur is entirely absent over this area. The left side of the chest appears to be normal. Posteriorly mucous râles are heard over the right side. Measurement of chest:—right side, 17½ in.; left side, 17 in.

Nov. 14. The dulness has extended to about one inch below the nipple. The hæmoptysis, which had ceased, has again returned.

Nov. 17. There is dulness throughout the entire right lung, and an absence of vesicular murmur.

Dec. 11. The measurements were again taken, and were as follows:—right side, 18 in.; left side, 17½ in.

Jan. 12. The patient died.

Post Mortem Examination.—The pleura was strongly adherent on the right side, and contained about 3 oz. of serum. The left lung weighs 1 lb. 6 oz.; is emphysematous and congested, containing, through its substance, black specks about the size of a split pea. The right lung is of large size, pressing on the heart and left lung; it weighs 8¾ lbs., and from its size, weight, and adhesions, is very difficult to remove. On section there were found to be cancerous nodules, from the size of a threepenny piece to a hen's egg, implicating the entire substance of the lung, with the exception of a small portion posteriorly, lying next the spine. The glands in the thoracic cavity were enlarged and similarly infiltrated. All the other organs were normal.

Case II.—malignant tumour of mediastinum involving left lung, &c.—M. H., æt. 20, domestic servant, was admitted to the Royal Infirmary, October 21, 1878, complaining of cough, shortness of breath, and pain in the left side. About a month before admission, patient felt pain and slight difficulty in breathing on exertion. She has never had any bloody expectoration; the sputum is white and frothy. Her previous history shows

that about four years ago she suffered from rheumatic fever, previous to that illness she had enjoyed good health. On admission the patient appeared well formed, not emaciated in any way, but well nourished. She is of fair complexion, combining the sanguine and strumous constitution, menstruation is irregular. At no time has she suffered from night sweats. Respiration is short and difficult, but regular. The cough short and frequent, of a laryngeal character; distressing the patient considerably. The dysphagia has increased rapidly, and since her admission she finds difficulty in swallowing even fluids. No enlarged glands could be felt, either in the neck, axilla, or groin.

Physical Signs.—On inspecting the chest, marked congestion of the superficial veins of the left side of the thorax is noticed, especially towards the apex, and extending over the left shoulder joint. There is a fulness of the chest wall on the same side, reaching to within an inch of the clavicle on the parasternal line. The respiratory movements are deficient on the affected side. Palpation shows that there is no expansion at the apex of the left lung, and, latterly, it is but slight. Vocal fremitus is absent. By measurement the chest is found to be increased in size, on the left side by half an inch, the exact measurements being—from the fifth dorsal vertebra to a corresponding point in front, right side, 14½ in.; left side, 15 in. From sixth dorsal vertebra—right, 14½ in.; left, 15 in. From tenth dorsal vertebra—right, 13½ in.; left, 13½ in.

On percussion at the apices of both lungs a clear note is produced, and the note on the right side is normal throughout. On the left side, absolute dulness commences about an inch below the clavicle, extending in a vertical line down to the upper margin of the fifth rib; and in a lateral direction, from the left margin of the sternum at the third interspace, to the anterior axillary line. On auscultating the chest the breath sounds are heard to be increased on the right side, and on the left in the resonant space. Over the dull area the vesicular murmur is entirely absent, vocal resonance cannot be elicited. Posteriorly, the physical signs cannot be so exactly noted, owing to the distress examination causes the patient. But dulness and absence of vesicular murmur over a considerable area are the points observed. The surface temperature on the two sides was found to vary:—

	Right side.	Left side.
Eve.	99°·4	100°
Morn.	97°·6	99°
Eve.	98°·3	99°

Thus showing an increase of about half a degree in the temperature of the affected side. It is also noteworthy that the pulses differed; that of the left side being less strongly marked than that of the right. The rate of the blood current was apparently the same.

Nov. 11. During the last few days the patient has been affected with dyspnœa to a much greater extent than formerly. She also perspires profusely at night. The expectoration still continues frothy. Examination shows that the dulness has now advanced as high as the clavicle, and the respiratory sounds are absent in that part of the lung. On the right side coarse mucous râles are heard accompanying respiration. The patient cannot now speak above a whisper, and it appears as if the left vocal cord were paralyzed by the pressure of the tumour on the recurrent laryngeal nerve.

Nov. 19. Patient died to-day.

For the last few days the dyspnœa was so distressing that she could not assume the recumbent posture.

Post Mortem Examination.—The body was well nourished. No œdema of legs or of body. The right pleura appeared normal; the left was everywhere adherent. The upper part of the left lung was occupied by an extensive nodular mass extending into the neck, as high up as the thyroid gland. This mass was firm and closely connected with the lung tissue. On removing the lungs *en masse* the following disposition of parts was seen. The whole of the lower part was occupied by gray hepatization. In the neck the nodular mass appeared connected with the cervical glands, and extended into the mediastinum, enclosing aorta and roots of cervical vessels. These vessels were closely surrounded and imbedded in the tumour, which seemed to invade the external coat, and the vessel could not be shelled out of the tissue without tearing this coat. The middle and internal coats appeared normal. The tumour involved the upper third of the left lung, and was inseparably connected with it by nodular prolongations of the tumour mass into the lung tissue.

The general colour of the tumour substance itself is pale grayish yellow, in some places pearly gray, in others opaque and streaky. Here and there, near the growing edge, the tissue is of a reddish or purple colour. On section an abundant milky fluid can be scraped off. In the larynx the arytenoid mucous membrane presented signs of recent œdema; the left vocal cord was slightly thickened, as compared with the right.

The right suprarenal capsule was enlarged to the size and shape of a jargonelle pear. On section it was found to consist

entirely of soft cancerous substance, of a grayish colour mottled with red. In the centre, and somewhat to one side of this mass, was a round nodule, about the size of a hen's egg, surrounded by a fibrous capsule. The left suprarenal capsule was perfectly normal. Both kidneys contained several small pea-like bodies, apparently of a malignant nature. Under the microscope, sections of these various morbid conditions showed the structure of medullary carcinoma.

The heart seemed to be pushed into the middle line, the external surface of the pericardium was thickly covered with large dilated veins. On opening the pericardium, about 8 ounces of reddish serum escaped, with fragments of soft clots. The surface of the heart and parietal pericardium were thickly coated with rough shaggy lymph. The valves of the heart were normal. The rest of the organs, both external and internal, appeared normal.

CASE III.—MYELOID SARCOMA OF LUNG SECONDARY TO SIMILAR TUMOUR OF RADIUS.—R. M'A., æt. 18, milk boy, admitted November 15, 1878, complaining of spitting of blood.

After a paroxysm of coughing the patient expectorated a quantity of blood. In May last the patient had his left arm amputated in this Infirmary, and it was about three months afterwards that he noticed the bloody expectoration. After his recovery from the operation, the boy returned to the country, and to his occupation; and while so engaged, he was crushed between two carts, hurting the right side of his chest. The injury was not severe, and did not not lay him up; and was subsequent to his expectorating blood.

The patient complains of difficulty of breathing on exertion, but he has experienced no dysphagia. The tumour, for which he had his arm amputated, was a mycloid sarcoma, attached to the left radius. On admission, the boy presented the appearance of a well nourished lad for his age, fair complexioned, and of a strumous constitution. The appearance was not cachectic at this time. The voice is husky, the usual tone not above a loud whisper, but after clearing his throat he speaks tolerably well. Laryngoscopic examination reveals no morbid condition of the larynx. He has a frequent, short, husky cough, but no expectoration except the hæmoptysis, which is only occasional.

The following table shows the average variation in 24 hours:—

	Right side.	Left side.
Morn.	99°	98°·4
Eve.	99°·4	99°
Morn.	100°·2	99°
Eve.	101°·4	101°

Note.—The registration of the temperatures in this and the preceding case is that of the surface. The thermometers being laid flat on both sides of the chest, and covered with cotton wool.

The chest is well formed, but there is a slight fulness, and obliteration of the intercostal spaces, on the right side; extending from the third to the sixth rib. On taking a deep inspiration the whole chest seems to be lifted up. The respirations are short, but not frequent. There is feeble expansion at the apices, and lateral expansion is diminished. Vocal fremitus is absent. By percussion a resonant note is elicited, on both sides, in the infraclavicular regions. On the left side the percussion is normal. On the right side, dulness commences at the third interspace, and is continuous with that of the liver; laterally, from the margin of the sternum, at the level of the fourth rib, it extends right round to a corresponding point posteriorly. The dulness is absolute.

Auscultation shows that, on the left side, respirations are coarse, with occasionally sibilant râles. On the right side, at the apex, supplemental breathing is distinctly heard. Over the dull area the vesicular murmur is heard but feebly. Vocal resonance is absent on both sides. Posteriorly a slight bulging of the right side is observed, and percussion over this part gives an absolutely dull note; the vesicular murmur is exceedingly feeble. The hepatic dulness merges with that of the pulmonary, but the inferior edge of the liver can be made out, about $1\frac{1}{2}$ inches below the margin of the ribs, in the nipple line, and there is slight tenderness on pressure. Measurement of chest—from fifth dorsal vertebra to middle of sternum, right side, $15\frac{1}{2}$ inches; left side, 15 inches. From eighth dorsal vertebra to lower segment of sternum; right side, 16 inches; left side, 15 inches.

Nov. 22. The patient cannot lie in bed, owing to a pain in the right shoulder, extending along the clavicle. The right arm is swollen, and the superficial veins congested. He complains of pain when the bones of the forearm are squeezed together over the inner edge of the ulna. The legs and feet are swollen and œdematous. The dulness on the right side of the chest now reaches as high as the second rib, and nearly to mid sternum.

Nov. 25. Breathing is now effected with much greater difficulty, and the patient's lips and hands are livid. He cannot assume the recumbent posture at all, but sits in a ward chair, and leans somewhat to the affected side. His urine was examined and found to be faintly acid. Spec. grav. 1025, with a slight mucous cloud; phosphates and chlorides normal. Neither albumen nor sugar was present.

Nov. 26. The patient is quiet, but the dyspnœa continues. About mid-day he died.

Post Mortem Examination.—Legs and hand dropsical. The left lung was seen to be collapsed; adherent at the apex and sides by old adhesions. On trying to inflate the lung, the air entered with difficulty. There was no fluid in either pleura, but the left pleural cavity appeared to have been occupied by air. The right pleura is adherent everywhere by old adhesions. In the left lung several masses of soft hæmorrhagic tissue of a malignant appearance are noticed. These resemble, to the naked eye, a sponge, containing in its meshes a sort of broken down tissue mixed with blood. In the right lung, nearly the whole of the lower lobe is occupied by similar tissue, in the form of a large mass with a capsule round it. This mass presents a coarse reticulated structure, the trabeculæ being pale, firm, and smooth, and the meshes containing broken down tissue and blood. The rest of the lung tissue is normal. Microscopically, the tumour presented the typical characters of a myeloid sarcoma. The bronchial and axillary glands, on both sides, are normal. The rest of the organs are also normal.

CURRENT TOPICS.

OUR PROGRAMME FOR 1879.

In issuing the first number of the *Journal*, in the enlarged form, we have to refer to our prospects during the year. It was anticipated by some that, with the increase in the amount of the annual subscriptions, there would be a large falling-off in the number of members. It is gratifying to be able to state that the falling-off has been much less than the lowest estimate, only 15 having withdrawn. When it is considered that a certain reduction in the existing membership is to be looked for at the