ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

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BRANSBY B. COOPER, Esq., Vice-President,
in the Chair.

Case of extensive Carcinoma of the Lungs, with some Practical Remarks. By GEORGE BURROWS, Esq., M.D., Physician to St. Bartholomew's Hospital.

THE author adverts to two conditions in which carcinoma is found in the lungs, either as a primary or secondary affection. In the latter it gives rise to few pulmonary symptoms, and produces but little change in the pulmonary tissues. Primary cancer of the lungs, on the other hand, is a most serious disease. Very large portions of a lung become infiltrated with this morbid deposit, and this is often combined with mediastinal tumours of a similar character. The symptoms which attend on these formations are most distressing and perplexing; they partly arise from the gradual consolidation of the lung, and partly from pressure on the respiratory tubes and blood-vessels at the root of the lung.

CASE.—A married woman, aged 20, was admitted into St. Bartholomew's Hospital, on the 22d of April, 1843, giving the following history of her complaints:—She had been healthy until six months ago, when she was attacked with pain beneath the sternum, cough, and expectoration. She was delivered of her first child about three months since, after which dyspnoea and cough increased, with some swelling of the cervical glands. From this time her health declined, and a month before her admittance, she was attacked with hæmoptysis. On admittance, her face was pallid and bloated, with rather livid lips; respiration 40, with much dilatation of the nostrils; pulse 132, small; decubitus on the back inclining to the right side. She complained of pain beneath the sternum; distressing paroxysms of cough, leaving her breathless and panting; expectoration scanty, the sputa bloody, resembling red currant juice; the cervical glands on the right side swollen, hard, and tender, with enlarged veins passing over them, the external jugular vein much distended. Upon auscultation and percussion the left lung appeared to be healthy. On the right side, there was a feeble respiratory murmur in the upper third; in the two lower thirds there was a varying amount of bronchial breathing; the expiration prolonged, accompanied by a modification of sibilus, resembling a chirp. On percussion the sound was extremely dull all over the lower two-thirds of the right lung. The voice was so weak and husky that no vocal phenomena could be discovered. The heart's sounds were natural, and not transmitted beyond the cardiac region.

The physical symptoms, in some respects, indicated consolidation of the larger part of the right lung, while in others they were those of pleuritic effusion. This latter supposition was supported by the measurement of the chest, which gave an excess of an inch and a half to the right side, over the left, as well as the constant posture of the patient on her right side. The author ventured to form the diagnosis of malignant disease of the right lung, partly founding that opinion on the physical signs which did not correspond with any of the ordinary forms of thoracic disease, and partly on the history of the complaint. A few days after this examination the cervical glands increased much in size, occasioning additional suffering by pressure on the trachea. The face, throat, right arm, and mamma became very anasarcaous; the dyspnoea, cough, and peculiar bloody expectoration continued, the posture was almost entirely on the right side, and the physical signs of pleuritic effusion more decided.

It now became a question whether paracentesis thoracis ought not to be performed to relieve her suffocating dyspnoea; the operation was not considered right, as the author still adhered to the opinion of extensive malignant formations in the right lung. Without further change of symptoms the woman expired at the end of a fortnight. The body was examined nine hours after death. The heart and left lung were found healthy; the right pleura contained about four pounds of brown-coloured serum; the lung had not collapsed, but stood out, projecting into the cavity of the pleura; the upper lobe was not much altered; the middle and lower lobes felt quite solid; a white lobulated tumour, something like a mass of suet, projected from the middle lobe. Towards the root of the lung was another dull-white tumour, which had thrust the lung up from the spinal column. The substance of the middle lobe appeared to be continuous with these tumours; the pleura covering the lower lobe was dark-coloured, with numerous enlarged blood-vessels ramifying on the surface. Upon making section of the middle lobe and tumours their substance was of a uniform dull-white colour, and rather soft; in some points there were a few minute vessels; the surfaces yielded, on compression, a white creamy fluid in considerable quantity. The superficial parts of the lower lobe were converted into a dark-brownish friable substance, studded with streaks and patches of white matter. Portions of the carcinomatous substance had also made their way into the right bronchus and the right pulmonary vein. In the upper part of the anterior mediastinum there was another carcinomatous tumour, and upon making section of the enlarged cervical glands they presented similar changes. All the abdominal and pelvic viscera were ex-

amined and found free from carcinoma. The author then proceeds to give an account of our knowledge of carcinoma in the lungs, referring to the works of Laennec, Andral, Stokes, Sims, and Walshe, and points out the rapidity with which the diagnosis of this disease had improved. The paper is concluded by the following statement:—"That when a patient has long been suffering from severe affection of the respiratory organs, with physical signs offering close analysis to those of consolidation of the lung, or of copious pleuritic effusion, and presenting anomalies not compatible with either of those morbid conditions; and when the history of the case does not accord with that of tubercular infiltration of the lung, nor of chronic pneumonia nor pleurisy, malignant disease should be suspected. In addition, if the countenance becomes bloated, the eyeballs prominent, the throat swollen, with oedema of the arm on the affected side, enlargement of the superficial, cervical, and thoracic veins, dysphagia, with enlarged glands, or other tumours, on the surface of the body, and the cough be accompanied with currant-juice sputa, the diagnosis of malignant disease of the lung may be considered complete."

Mr. LLOYD detailed some particulars of a case of malignant disease affecting the uterus, rectum, and oesophagus. It was first noticed in the rectum, round which abscesses formed. Some short time afterwards the patient became affected with cough and difficulty of breathing, the cough being accompanied with blood and frothy expectoration, which subsequently became thin, and very offensive, so offensive, indeed, that the room was disagreeable to enter. She died, and on examination carcinomatous disease was found in the rectum and oesophagus, that in the former organ containing a number of cells filled with a substance like black currant-jelly. In the lungs there was found a very large cavity, traversed by vessels and bronchial tubes, and containing a quantity of black matter mixed with blood and tubercles; there was purulent matter, also, streaming down the sides of the cavity. Several tumours, of a fungoid character, were found situated in various parts of the body.

Mr. B. COOPER remarked, that the case just related was one of secondary malignant disease of the lung, and in this respect differed from the case detailed in the paper, which was one of malignant disease, primarily affecting the lung.

Dr. BURROWS remarked, that that circumstance constituted the interest of his case, for secondary malignant disease of the lung was by no means so rare.

Dr. C. J. B. WILLIAMS inquired, if in Dr. Burrows's case, there had been, in the early stages, an unusual degree of breathlessness or spasmodic dyspnoea.

Dr. BURROWS replied that the patient had come under his care only during the last fifteen days of her life. During the time she was in the hospital the breathing was often distressing, short, hurried, and asthmatic, particularly after a violent fit of spasmodic coughing.

Dr. C. J. B. WILLIAMS had observed, in several cases of malignant disease of the lungs, that this peculiarly spasmodic character of the breathing was one of the most prominent symptoms, and, indeed, was less observant in any other disease, with the exception of spasmodic asthma and aneurysm of the aorta or innominate. Seven or eight cases of primary malignant disease of the lungs had come under his notice, and in all of these there was dyspnoea in the early stages, a dyspnoea tending to be spasmodic or to amount to a state of breathlessness on making the slightest exertion. This symptom was, perhaps, more prominent than any other as the disease advanced. This peculiar symptom, he believed, to be dependent, first, on an alteration of the quality of the circulating fluid itself, which in cancer we knew to be deteriorated; and, secondly, upon the influence exerted by the local disease itself. He considered the society indebted to Dr. Burrows for the interesting case he had brought forward, for every instance of the disease might afford its assistance in our diagnosis. He (Dr. Williams), however, thought, as a general rule, that the diagnosis of malignant disease of the lung was sufficiently clear, and that there were peculiarities in it which would render it easily distinguishable from any other chest affection. Thus, for instance, it must be recollected that malignant disease had a tendency to growth; it was not a simple consolidation, a deposit, nor an effusion into the tubes, but a mixture of both. This growth produced obstruction and other symptoms, which were not to be found in other changes of the lung, such as the dyspnoea previously alluded to, which often amounted to spasm. In two of the cases he had seen this difficulty of breathing was attributable to the fact of the recurrent nerve being involved in the disease; the dyspnoea came on suddenly, and subsided as suddenly, the breathing being almost completely stopped during the paroxysm. In this respect it resembled an attack of laryngismus stridulus. As the disease proceeded in its course the veins generally became obstructed, and hæmoptysis was the result, the bronchitic expectoration being mixed with blood, or in some cases resembling red currant-jelly. As the tumour increased in size it caused obstruction of the circulation through the veins of the neck. Out of the six or seven cases he had seen, the right lung was the seat of the disease, which produced more or less obstruction of the vena innominate, and swelling and oedema

of that side of the neck. The presence of the tumour was often rendered demonstrative by these effects, and by its displacement of the walls of the chest, which it pressed distinctly forwards; or it might even encroach upon the superior wall of that cavity, as he had found it in one instance, above the clavicle. The implication of the glands of the neck and the axilla, as in the case under discussion, would also be serviceable in leading us to arrive at a right conclusion respecting the nature of the case. The progress of the disease was evidenced by the consolidation of the lung, which had not the usual characteristics of consolidation from other causes, for whilst, in the latter, the tracheal sounds were louder than usual, and there was an unusual resonance and tubular sound at the affected portion of the lungs, in the former, from pressure on the principal branches of the bronchial tube, scarcely any sound could be heard, or, at most, there was but a slight breath-sound, or a sonorous rhonchus at the root of the lung. In two cases this consolidation had produced a distinct projecting tumour at the upper part of the chest, pulseless and dull on percussion. As the tumour progressed it commonly caused effusion into the pleura, by exciting pressure on the pulmonary vessels; but what was curious, with the usual symptoms of this state of effusion we often found signs of perfect consolidation of the upper part of the lung, in the absence of all usual tubular phenomena found in cases of extensive effusion. In a case which he had attended with Mr. Avery, the usual signs of effusion were found in the lower part of the chest, whilst the upper portion was consolidated. The peculiar spasmodic breathing previously alluded to was very marked. These symptoms, together with the presence of enlarged glands in the neck, led him to believe that the disease of the lung was malignant. Dissection proved this opinion to be correct. In another instance there was bulging out of the walls of the chest, from effusion at a little distance above its lower portion, which was normal. On examination after death, this was explained by the discovery of an adhesion existing between the pleura pulmonalis and costalis, rendered still thicker by a carcinomatous deposit, and which did not give way from the pressure of the fluid above. On one occasion, he was consulted in a case which had been considered to be spasmodic asthma, from that peculiar condition of the breathing which was one marked symptom of malignant disease; hydro-thorax, with consolidation of the upper portion of the lung, were present, and subsequently general dropsy; malignant disease was suspected. After death, a mass of scirrhus disease was found encircling the vessels at the root of the lung. Such were the chief marks by which our diagnosis of primary malignant disease of the lungs

might be formed. When this affection was of a secondary character, none of these signs might be present, and the patient might sink from exhaustion, from the effects of the complaint on other organs, without the existence of the lung disease being suspected. In answer to a question respecting the spasmodic breathing, Dr. WILLIAMS replied that in most of his cases the right bronchus only was compressed, but he recollected one case in which both bronchi were included in the diseased mass.

Some desultory conversation followed between the PRESIDENT and Drs. BURROWS and WILLIAMS respecting the sufficiency of the physical signs to determine the nature of cases of malignant disease of the lungs. Could these signs be trusted to alone?

To this it was answered, that these signs alone were generally sufficient to determine the character of the affection, but, of course, all constitutional signs and symptoms which were presented would be taken in evidence—such, for instance, as a cancerous diathesis—the presence of malignant disease in other parts of the body. These, however, might be absent, in some cases entirely, particularly in the early stages, and in young persons, and then the physical signs would be found sufficient for our purpose.

Dr. G. BURROWS had brought this case before the society in order to obtain the experience of members in similar cases. The detail of symptoms of particular cases would enable them to form a more accurate diagnosis. He detailed a case of malignant disease of the lung, which was considered, by one party consulted, to be simple consolidation, and by another, and the greater number, to be effusion into the cavity of the pleura. Paracentesis was performed, and a little blood only flowed. The patient died, and the lung was found affected with malignant disease.

Mr. PRESCOTT HEWETT briefly related the two following cases of malignant disease of the lungs, one of which had many points of resemblance with that related by the author of the paper. A man, aged 38, was admitted into St. George's Hospital, with a chronic affection of the chest, which, at first, presented very much the aspect of chronic pleurisy, with extensive effusion into the pleuræ. The symptoms were very obscure, but the nature of the case, some short time after the man's admission, was made manifest by the appearance of some large soft tumours in the lower intercostal spaces. These tumours evidently came from within; they increased in size, and ultimately made their way immediately underneath the skin. The patient died a month after his admission into the hospital. At the after-death examination large masses of encephaloid disease were found completely surrounding the root of the left lung; the morbid deposit had made its way both into the mediastinum

and into the substance of the lung, the greater part of which was quite solid, and adherent to the walls of the chest; from the lung the disease had spread through the intercostal spaces, had destroyed the muscles, and was lying immediately in contact with the subcutaneous cellular tissue. There were also several large encephaloid tubercles both in the liver and in the spleen. There were no enlarged glands either in the neck or axilla. The other case was that of a woman, aged 40, who was admitted into St. George's Hospital, with most urgent dyspnoea, resembling asthma, but not of a spasmodic character. She died two days after her admission. The urgency of her symptoms did not admit of any minute examination or account of her history. Both lungs were studded with deposits of colloid cancer, which was, for the greater part, situated round the bronchial tubes, following their minutest ramifications; this deposit did not exceed, even around the largest bronchial tubes, two lines in depth. A few of the bronchial glands were enlarged, and affected in the same way. The pyloric extremity of the stomach and the glands were similarly affected. The preparation had been exhibited to Dr. Hodgkin and Professor Rocitanski, of Vienna, neither of whom had before seen a specimen of colloid cancer of the lung.

Mr. B. COOPER thought these cases could scarcely be considered instances of primary malignant disease of the lungs, as in one case the disease commenced in the mediastinum, and, in the other, it had its origin in the bronchial glands.

Drs. WILLIAMS and BURROWS, and Mr. HEWETT, would regard the disease as primary, whether it originated in the mediastinum, the bronchial glands, or the root of the lungs.

Mr. WILKINSON KING was of opinion that the diagnosis of malignant disease, when confined to the lung, is still a matter of extreme uncertainty.* He had known experienced and approved auscultators prescribe paracentesis in such a case. He regretted that no idea seemed to be entertained by those who had spoken before him, of discriminating between the cases in which lung, bronchus, and trachea were severally and distinctly involved. The at-

tendant dyspnoea should, doubtless, be referred, in general, to the proportionate obstruction of air tube or compressed lung. The asthmatic or spasmodic paroxysms—the *variable* dyspnoea, he imputed chiefly to injection of the bronchial lining, regulated by repletion, catarrh, posture, abstinence, &c. He had been accustomed to think of cancer in the system as one cure for asthma. Wasting of the body, with the abstraction of the severer causes of catarrhal relapse, seem calculated to diminish pulmonary obstruction, and he had known, more than once, of old winter coughs, dilated air-cells, and bronchial tubes, long reduced to very quiescent conditions by the protracted effects of cancer (whether open or not) in distant parts.

Mr. STIDOLPH exhibited a machine to enable blind persons, and those with a tremulous hand, to write. It attracted much attention.

On the Effect of Water-drinking in the Cure of Gout. By JOHN BOSTOCK, M.D., F.R.S.

We have lately heard so much, not only of the moral but of the physical effects of water-drinking, as practised, either on the more moderate scale of the disciples of Father Matthew, or in the more profuse ingurgitations of the hydropathists, that I have conceived it may not be altogether uninteresting to the Medico-Chirurgical Society to have an account of a few observations which I have had an opportunity of making on these two processes.

The first case to which I intend to direct the attention of the society is that of a gentleman, of seventy years of age, who had been, from an early period of his life, subject to very frequent attacks of the gout, the predisposition to which complaint he inherited from his parents; connected with this he had been a constant sufferer from stomach affections of various kinds,—acidity, flatulence, heartburn, irregularity,—in short, from every one of the affections which are enumerated in Collier's well-known definition of dyspepsia. His mode of life was regular and moderately active, his diet what might be called temperate, although not abstemious. He had, indeed, been advised by his medical friends, to take wine in a moderate quantity; he had occasionally employed ale, porter, and brandy and water, but never in what could be considered an excessive quantity. In this way he had passed about forty years, seldom actually confined by indisposition, but almost always subjected to a succession of ailments, which rendered it necessary to have recourse to medicines of various kinds, and more especially to alkalies, which were taken in large quantities, and, as the symptoms seemed to indicate, to purgatives or sedatives, and to a variety of tonics and stimulants. During

* Affections of axillary glands cannot indicate more than affection of pleura costalis. Tumour behind the clavis is a distinct case, as well as partial venous obstruction. These are most significant when apart from lung disease. The signs of lung-cancer, as of any disease confined within a part of the cavity of the chest, may be seemingly corroborated by a good guess, but who ventures to say that he can severally discern hydatid and limited empyema, and abscess and fungus in the centre of one lung?