After such concurrence of judgment among the medical profession in this country, it is unnecessary to allude to that of our brethren abroad. It is all but unanimous; except, perhaps, in Spain and the Italian States, where other motives, besides those of truth and conviction, are well known to influence the judgment of officials upon such matters. Nor is it undeserving of notice that, although these countries profess to place the greatest reliance on quarantine measures, and certainly carry them out with the greatest rigour, the experience of the recent epidemic has again shown their inefficacy against its invasion.* Malta, which, although a British island, may be regarded as truly Italian as regards her quarantine establishment, was again visited with cholera in 1850.

As far as I am aware, it has not been alleged by any person that it was then imported by shipping. Nor have the endeavours of the Spanish *guardas* to keep out the pestilence from Cuba, where the quarantine regulations are of the utmost stringency, been more successful. This was the only island in the West Indies that suffered during the first epidemic in 1834. In 1850, the enemy again found its way in by some channel that has never been discovered; and you will perhaps remember that, in the paper which I had the honour of reading before this society last year, I showed that the development of the pestilence in Jamaica towards the end of the same year could certainly not be traced to any neglect or violation of the quarantine, to whose agency the immunity of the island during the former epidemic had been ascribed.

Notwithstanding these facts, such is the dread of this plague in countries which have hitherto escaped its visitation, and such has hitherto, from long habit, been the vague and general belief that new diseases may be kept out by a system of rigorous medical police, just as interdicted articles of merchandise may be excluded by custom-house officers and coast guards, if these men will but do their duty, that the most extraordinary measures have been resorted to, in different places, within the last year or two for the purpose of presumed self defence. For example, two years ago, at Demarara, a quarantine of forty days was imposed upon one of our ships of war, crowded with troops too at the time, simply on the ground that she had come from Kingston in Jamaica, although no disease existed in that town at the date of her departure, nor had a single case of sickness occurred on board during the voyage. This was, certainly, a precaution with a vengeance; and might, I need not say, have led to the most disastrous consequences to the unfortunate *detenus*, had not the captain wisely determined to go to another colony, where he might communicate with the shore, until the appointed time had expired for the landing of the troops at Demarara.

Something of the same sort recently occurred also at the island of Mauritius; so that you see what views are being still entertained, and acted upon too, by some of our own countrymen abroad. Let us not, therefore, boast too much of our superior enlightenment in matters such as that now under consideration, or be so prompt, as we are apt to be, to rail at the ignorant obstinacy and blind prejudices of foreign states, in refusing to go along with us in effecting the reform of various practices, however opposed these practices may be to the conclusions of scientific research and the acknowledged results of experience. Let it be remembered that the inconsistencies of our own Government have been often so flagrant, that foreigners may well call upon us to look at home, instead of setting ourselves up as their guides and instructors. They may remind us that, after two formal declarations of the inefficacy of quarantine to avert the cholera, an order was issued, no farther back than last September, from our Council office, reimposing what was called a "Quarantine of Observation" in our own harbours on vessels, on board which was "any person or persons actually suffering from cholera, or who had been

suffering from that disease within the five days previous to the arrival of the vessel in port";—such persons to be detained on board the vessel, and the vessel to be kept in quarantine "for such period as the medical officer employed to visit the sick might judge necessary for the security or preservation of the health of the community on shore."

In drawing these remarks to a close, I cannot but again strongly commend the subject of quarantine to the searching inquiry of the medical profession. That the system hitherto pursued stands in need of a thorough revision, and of some important changes, cannot, I think, be questioned by any one. I have already occupied too much of the time of the society to dwell upon these points at present; and it is the less necessary to do so, as I have explained my views at some length in the Report on the Cholera in Jamaica and on the sanitary condition and wants of that island, addressed by me in the course of last year to the Colonial Minister.

Fitzroy Square, June 1853.

CASE OF PULMONARY DISEASE: EXUDATION DEPOSIT BETWEEN THE LUNG AND PLEURA.

By P. MARTIN DUNCAN, M.B.Lond., Physician to the Essex and Colchester Hospital.

(Read before the Suffolk Branch of the Provincial Medical and Surgical Association, June 24, 1853.)

THE following case excited much attention amongst the medical men in and about Colchester, on account of its interesting and somewhat anomalous character.

A tall and thin, red-haired labourer, aged 22, the son of unhealthy parents, and the brother of some very phthisically disposed individuals, came under my care as an inpatient at the Essex and Colchester Hospital, in March 1850. He had never had very good health, and for some weeks had suffered, from cough, a sensation of uneasiness, never amounting to actual pain, in his right side, and from gradually increasing dyspnoea. The cough was occasional, and not very severe in its duration; but, from its being induced by the slightest exertion, it was very inconvenient to him; the expectoration was small in quantity, saline to his taste, and mucoid. He had become emaciated to a considerable extent before his admission into hospital, and was troubled with a harsh, hot skin. On examination, I found that his countenance denoted a depressed state of his general powers; his eyes were sunken, and the pupils dilated; his hair was harsh and dry; and the *ale nasi* were in constant action. He never complained of headache, or of any nervous symptoms. The general muscular development was very low, and he had large ends to his long bones, clumsy joints and clubbed ends to his fingers, and a narrow chest. Any unusual exertion fatigued him, and greatly increased the number of the respiratory efforts, and the pulsation of his heart. The thorax expanded very unequally during inspiration, and the abdominal muscles assisted in an abnormal manner. The right side of the thorax was seen to expand less than the left during inspiration; and this expansion was sudden, and not progressive: still, there was no very great difference between the two sides. The measuring tape determined that the right was half an inch larger than the left side of the thorax. Measured by Quain's stethometer, the infraclavicular region of the right expanded only five degrees less than the corresponding region of the left side. Hutchinson's spirometer proved that the patient's capacity for respiration was forty-five per cent. below the average. There was no bulging of the intercostal spaces on the right side; and the care which was taken in this physical examination was determined by the peculiarity of the results of percussion and auscultation. The whole of the right side of the thorax was dull on percussion—very dull; in fact, the upper margin of the liver could not be distinguished from the adjacent lung; the left side was resonant, and had none of the

* Professor Sigmund informs us that, in 1849, the disease made its appearance in Naples, Brindisi, Leghorn, and Genoa, in all of which places quarantine was maintained against its introduction; while Civita Vecchia, where no quarantine existed, escaped altogether.

sense of resistance to the finger possessed by the right side of the chest. The dullness was less over the track of the larger bronchi, but the clavicle, on percussion, yielded a dull sound. The vesicular murmur was rude and puerile over the whole of the left side, and feeble and yet perfectly audible over the whole of the right. There was slight excess of bronchial breathing in the infraclavicular region of the left side towards the median line, but on the dull right side there was no such excess. The only stethoscopic sign was a marked diminution in the intensity of the vesicular murmur. On coughing, wheezing sounds were occasionally heard in the scapular region of the left, but not on the right side. The vocal fremitus was well marked on the left side, and could be satisfactorily distinguished over the whole of the right side: it was not more intense in one spot than in another. There was no ægophony, bronchophony, or any vocal evidence of condensed lung. There was no creaking or friction sound on the right side, and the heart appeared to be healthy and *in situ*. The pulse, however, was 120, and increased rapidly whilst the examination proceeded. The respirations were from 38 to 45 in a minute. The liver and spleen were within their regional limits; and the abdominal viscera appeared to be in a normal condition. The tongue was rather glazed, and the gums spongy; the appetite was tolerable; there was no great amount of thirst; the bowels were constipated; the urine was said to be scanty and high coloured. As regards the superficial parts, there were no enlarged veins; and the sallowness of the skin appeared to be congenital.

The left lung was evidently performing the office of the right; and the supplementary character of the breathing was indicated by the rude and puerile vesicular murmur. There was no prolonged expiration, or irregular inspiratory sound; but, on the right side, there were the following physical signs, common enough in any other aggregation than the present: dullness on percussion; little loss of mobility; no increase in dimension; faint vesicular murmur; no tubular or bronchial breathing; diminished intensity of vocal fremitus; no ægophony nor rubbing sound.

What was the state of the right lung? That it was grievously affected, there was no doubt. The dullness on percussion and the loss of mobility would indicate pleuritic effusion; but the vocal fremitus was to be felt distinctly enough, and the vesicular murmur was to be heard, contradicting that disease. Might not there be thick false membranes between the layers of the pleura? The amount of mobility and the history of the case, the absence of pain and the lack of creaking or rubbing sounds, militated against this opinion.

Condensation of the lung, from tubercle, pneumonia, or any deposit in the parenchyma, was contraindicated by the absence of excess of bronchial breathing, and the diminished character of the vocal fremitus, although the dullness on percussion favoured this view.

For some time after this examination, under the influence of diet and moderate purgation, his intestinal canal became more healthy, his skin altered in its harshness, and his urine less lithic; still, for some weeks, the severity of the chest symptoms increased. Counter-irritation decidedly made him worse; still, there was no enlargement of the right ribs, or tenderness on pressure. He took the iodide of iron and occasional doses of compound rhubarb pill for three months, and improved both as regards his general health and his chest symptoms. The dullness on the right side was as great as ever; but the movement of the side was considerably increased. The vesicular murmur was still faint, and the vocal fremitus a little more distinct.

At this time, I conjectured that the physical signs intimated that there was disease of the pleura covering the lung, not of that lining the side of the chest; and that this disease did not affect the proper pleural membrane, but the cellular tissue between it and the lung—that tissue which is permeated by the blood-vessels which supply the pleural membrane proper.

A general deposit of exudation substance, of lymph, most probably of strumous origin, in this subpleural layer, would account for all the physical signs. Being impervious to air, of less density than the parenchyma of the lung, and general in its distribution, it would produce a dull sound on percussion, and a sense of resistance. For the same reasons, it would allow of a partial transmission of the vocal fremitus; and, as there need not necessarily be false membranes and adhesions between the pleuræ, the mobility of the side of the chest would only be diminished to a certain extent. The density of the deposit could not be enough to increase the sound of the voice, transmitted through the stethoscope; and it must have been sufficiently dense to prevent the occurrence of the bleating sound. It is most curious, that the right lung should not have suffered from bronchitic or pneumonic attacks. My opinion as to the existence of deposit beneath the pleura was founded on the acoustic phenomena presented by the patient; and, as my interpretation of these might be incorrect, I rarely passed a day without examining him.

The man remained nearly four months in hospital, and then went home, and remained tolerably well for two months. At the expiration of that time, I again saw him. The dullness still persisted, but the mobility of the side was gone, and the dimensions of the right half of the thorax were decreased. The mammary region was drawn in, and the shoulder pulled down. The vesicular murmur of the right side was very faint, and there was slightly tubular breathing. The vocal fremitus was more distinct. He complained of increasing dyspnoea. The left lung appeared to be working well, although there were large *râles* to be heard. The heart was decidedly displaced, its apex beating more than two inches to the right of the left nipple. He had suffered from slight pain in his right side, but there were no evidences of pleuritic effusion. He again left the hospital, caught cold, and became rapidly very ill; his cold led to a bronchitic attack, and his cough never after left him; dullness in the upper part of the left side of the chest, with tubular breathing and increased vocal resonance, supervened, and he died somewhat suddenly, from the bursting of a vomica in the upper part of the left lung.

EXAMINATION OF THE BODY. This was performed with the assistance of Dr. Clark of Colchester.

The chest alone was opened. The right side was greatly contracted; the left much bulged out. On opening the thorax, the right lung was found to be adherent by its pleural surface to the side and to the pericardium; but this adhesion was by no means strong, and it was easily destroyed. The lung was found close to the spine, huddled up in a corner, and no larger than a good sized orange. It was hard and dense, and a section showed carnification, the cirrhosis of Corrigan, with narrowing of the larger, and perfect absorption of the secondary bronchi; and, what was most interesting, there was a layer of semi-organised exudation, external to the altered lung, and internal to the pleura; in fact, between the lung and the pleura covering it. The left lung was studded with tubercles, and a large cavity existed in the apex.

I believe that the loss of mobility, and the subsequent contraction of the side of the chest, were induced by the natural contraction of the deposit of lymph beneath the pulmonary pleura; and that the absorption and condensation of the lung were also produced by the same mechanical causes.

Colchester, July 1853.

TESTIMONIAL. At a Board of Inquiry into the cause of the great sickness and mortality on board the *Ticonderoga* emigrant ship, which sailed from Liverpool, in August 1852, and arrived at Melbourne the following November, the first Surgeon-Superintendent, J. C. Sanger, M.D., was awarded a present of £50, in addition to his pay, in consideration of his extra services.