ON
DTUBERCULAR PHTHISIS,
BY DR. ROE.

IN a clinical lecture, delivered at the *Westminster Hospital* on the 27th of October last, Dr. Roe made some remarks upon pulmonary consumption, from which we select the following passages:—

It would be desirable, in a course of clinical lectures, to commence by illustrating the simpler forms of disease, and afterwards to proceed to those which are more complicated; but the nature of the prevailing diseases is so much influenced by season, and a variety of other circumstances, that it is not possible to adopt this plan; we are, therefore, under the necessity of selecting, as the subject of lecture, that form of disease which can be best illustrated by the cases at this time under treatment. The best marked cases at present in the hospital are labouring under consumption, and with this subject, therefore, I shall commence our clinical course. I am the less unwilling to direct your attention to this subject at the present time, because the result of one of the cases, at least, clearly proves, that consumption, even in advanced stages, may sometimes be arrested in its progress by medical treatment; that a person labouring under this formidable disease may be sufficiently restored to health to be able to return to his ordinary employment.

At the very commencement of consumption tubercles exist, scattered throughout the substance of the lungs, in the form of hard millet-seed granulations, around which the lung may be perfectly healthy; in this early stage the symptoms are so obscure, that I question whether they can be detected by either physical or rational science. When they become congregated into masses, the rest of the lung remaining tolerably healthy, a very experienced ear may perceive a slight change in the clearness of the sound of the chest on percussion; but it is no easy matter so to percuss the chest as to elicit the dullness of sound caused by the presence of those hard substances in the midst of healthy lung. If these masses be surrounded by emphysematous lung, the difficulty is still greater, as the sound, on percussion, will be preternaturally clear, and with it there will be somewhat of a dull sound. Again, a certain degree of inflammation may attack lungs, throughout which tubercles, in the miliary form, may have been deposited; thus the increased quantity of blood in the lung will render the sound so dull, that judging from this symptom only, you might suppose that the quantity of tubercles deposited were much greater than it really was.

In the more advanced stage of phthisis, when tubercles, in different stages, exist in

different parts of the lungs, the dullness under the clavicles decreasing as you descend, the soft crepitation in portions of lung, and the bronchial respiration, are almost conclusive evidence of the nature of the case; and the emaciation, nightly perspiration, cough, and difficulty of breathing in taking quick exercise, remove almost the possibility of a doubt. When a patch of softened tubercles has ulcerated, on opening into the bronchial tubes, and discharged its contents, the existence of excavation is detected by the presence of pectoriloquy; but if the excavation should happen to be filled with matter at the time of your examination pectoriloquism will not be heard. The presence of pectoriloquy does not always with certainty prove the existence of a tubercular cavity.

A large bronchial tube, passing through a mass of lung hardened by the deposition of tubercular matter, gives a sound, on the application of the stethoscope over it, which may easily be mistaken for pectoriloquy. This is a mere outline of the physical signs indicated by the presence of tubercles in the lungs; but the more you apply yourselves to auscultation and percussion, the more convinced you will be of the difficulty of attaining to practical dexterity in investigating the condition of the chest. The first step is, to accustom the ear to the soft sound produced by the air passing into and out of a healthy lung, and to the sound elicited on percussing a healthy chest; and, with respect to percussion, you must bear in mind the sound of healthy lung will be modified by the thinness of the chest, the degree of muscular development, and the quantity of fat with which the chest may be covered. You will soon perceive the difference of respiration in those whose lungs are obstructed from any cause, and by carefully connecting each sound with the cause which produces it, you will soon be enabled to seize the relations existing between the different sounds, and the physical causes which produce them.

Laennec and Louis, who are first-rate authorities, contend that tubercles are deposited in the cellular tissue, which connects the air vesicles, in which the bronchial tubes terminate; that the grey semi-transparent granulations constitute the primitive state of tubercle; and that at some subsequent period, in virtue of certain inherent properties, it is converted into a liquid mass, of the consistence of cream, and that this process of softening begins invariably in the centre of this substance; and that by the presence of tubercles, as a foreign body, the process of ulceration is set up in the membranous cells, and thus a communication is made with the bronchial tube, through which this matter is gradually expectorated. Andral denies that the grey semi-transparent granulations constitute the

primitive state of tubercle, or that the process of softening begins invariably in the centre.

Dr. Carswell is of opinion that the seat of tuberculous matter in the lungs is within the air-cells and bronchi, as exhibited in plates 1, 2, of the Fasciculus on Tubercle; that when first deposited it resembles soft cheese and water, both in colour and consistence; that its watery parts are absorbed, leaving it in a comparatively firm state; and that softening takes place from the admixture of pus and serum, which are secreted, in consequence of the irritation set up by the presence of tubercle as a foreign body; the tuberculous matter thus loosened is brought up by expectoration.

The most important of all practical questions connected with consumption, is what causes the deposition of tubercles in the lungs; the opinion which Dr. Carswell has given I believe to be the true one,—“That the formation and manifestation of this matter, as a morbid product, cannot take place unless the fluid, from which it is separated (*the blood*) has been previously modified;” some deterioration of the quality of the blood must, therefore, of necessity precede consumption. Let us now examine what are said to be the predisposing causes of consumption; the first is hereditary predisposition. Now, although it be true that the children of consumptive parents frequently die of this disease, it by no means follows, as a necessary consequence, that the blood transmitted to them by their parents contains in it tubercular matter; if this were the case we should find tubercles in the lungs of the foetus much more frequently than we do. The fact quoted by Dr. Clark, that Guisnet did not find a single example of tuberculous disease in four hundred newborn children which he examined, is sufficient to show that its occurrence in the foetus is comparatively rare. If it be admitted that the formation of tubercles depends upon some morbid quality of the blood, it will be necessary to show that this disposition takes place before those causes which are capable of modifying the blood of the adult have had time to operate, else we cannot show that the morbid quality of the blood of a child has been derived from its parent. Now, it appears the most accurate researches tend to show that it is between the ages of four and five that the majority of deaths take place from consumption.

In reference to climate Dr. Roe observes, that cold climate is another cause of this disease, but Sir Alexander Crichton asserts that consumption is more frequent in this country than in the northern parts of Russia; a cold climate cannot, therefore, be the frequent cause of producing consumption, inasmuch as the climate of Russia is infinitely colder than that of England. The warm clothing which the Russians are in the

habit of wearing, must protect them from the injurious effects of their climate; but this fact is sufficient to show that climate alone is not sufficient to produce consumption.

The causes which produce tuberculous disease are those which affect the quality of the blood; they may operate either by depriving the body of the materials fit for the production of healthy blood, or by rendering the body unable to convert the best materials into healthy blood. Food may be improper in quantity as well as quality: if children be allowed, as they generally are, either to take a good deal too much at one meal, or to be continually eating, the stomach, oppressed by a quantity of food which it cannot digest, or irritated by the frequent introduction of fresh portions of food, before it has digested that which it has already received, produces a sort of chyme altogether unfit for the production of healthy blood; the mesenteric glands become diseased, the abdomen swells, the body wastes, and tuberculous matter is frequently deposited in various parts of the body. The food fit for the support of man is partly animal and partly vegetable; it was once believed that the stomach had the power of converting into blood of the same quality animal and vegetable food; and the robust and vigorous appearance of the Irish labourers was adduced as the proof of this theory; but we have the fact every day before us, that the quality of the meat fed upon one sort of food differs materially from that which is fed upon others.

Pork fed upon beans is very different from that fed upon potatoes. An ox fed upon grass differs in flavour from an ox fed upon turnips; we must, therefore, believe that the blood formed from vegetable food cannot support the body as well as that which is formed from animal food; and the apparent vigour of an Irish labourer only shows the degree of nutriment which the body may receive under the favourable circumstances of pure air and moderate exercise. From an article of food, in itself not nutritious, when exposed to very hard labour, their strength soon fails, and the muscles shrink, and they soon acquire the appearance of old age. The influence of impure air is exemplified in the wretched appearance of persons confined in manufactories. Excessive cold, and excessive heat, seem to have the power of materially altering the quality of the blood. The continued application of cold to the surface of the body not only checks the cutaneous perspiration, and throws the blood upon the internal organs, but with the most carefully regulated diet symptoms of indigestion will speedily manifest themselves; the body will be imperfectly nourished, and everything will indicate that much blood has not been produced. Excessive heat seems to act by diminishing the powers of the nervous system, so as to

prevent healthy digestion. We have abundant proofs that everything that debilitates the nervous system has a tendency to injure the quality of the blood, and to produce consumption.

MEDICAL ESTABLISHMENTS

IN

CHINA AND SIAM.

To the Editor of THE LANCET.

SIR:—In "The Chinese Repository" of February, 1837, are contained two interesting articles, giving reports of the *Ophthalmic Hospital* at Canton, under the superintendence of Dr. Parker; and of the *Hospital* at Bankok, Siam (the inhabitants of which are closely allied in language, and in moral and physical characters to those of China), under the care of D. B. Bradley, M.D., from which some extracts may prove interesting to the profession. These gentlemen, confiding in the good effects likely to be produced by medical practice among the Chinese, are devoting themselves, as missionaries and medical men, "to bring about a more social and friendly intercourse between them and foreigners, as well as to diffuse amongst them the arts and sciences of England and America."

Dr. Parker, in his fifth "Quarterly Report," says,—“The lively interest in this institution, which its kind and benevolent friends have manifested, gives them a reasonable claim to know its progress and success: Though many diseases now reported are similar to those already described, yet occurring in persons of different ranks in society, and from different and more remote parts of the empire, and exhibiting the increased influence of these efforts, and the unabated confidence of the Chinese, they ought to be reported. The number received at the hospital is 2700; of these 548 have been admitted during the last term. The following are the diseases which presented themselves during the quarter.

	Cases.
Acute ophthalmia	85
Chronic ditto	15
Diseases of the eyelids.....	114
————— tunics.....	252
————— humours....	41
————— retina	12

among which are only 5 cases of amaurosis. There were admitted, also, numerous cases of tumour, dropsy, and diseases of the ear.

SARCOMATOUS TUMOUR.

Nov. 21, 1836. Lo Wanshun, aged 41, of the first society in her native village, had been twenty years afflicted with a large tumour on the left side of her face. It was situated below the ear extending forward

upon the cheek, and down upon the neck, so as nearly to touch the clavicle. As usual the traces of the cautery and escharotics of the native practitioners were seen upon it, and the patient stated that it had been lanced, the hæmorrhage from which was arrested with difficulty. After having attended to the general health, on the 15th of December the tumour was successfully removed. The patient endured the operation with the fortitude characteristic of the Chinese. The loss of blood was considerable; she vomited, but did not faint; she feared lest a large eschar might disfigure her face. By making the incision from the ear towards the trachea, sufficient facial integument was preserved to bring the wound behind and below the angle of the jaw. The wound healed by the first intention, and in ten days the dressing was removed. The face had nearly its natural appearance. Grateful and happy she returned to her husband and family.

CONGENITAL TUMOUR.

Wang Keking, aged 27, is the son of a respectable tea-broker resident at Canton. It was observed at his birth that the nates of the right side were unusually large, a little fat, as his nurse expressed it. The child did not attract particular attention till eight years old, when the preternatural enlargement had become conspicuous. Till within a few years the growth was gradual, but for the last four years its increase had been rapid, and it is now nearly one-third of the weight of the man. It is suspended, apparently by fibrous bands from the first of the false ribs on the back, the spinous processes of the ilium, and the nates. Its attachment covers a surface of about a square foot. The tumour extends a little below the knees vertically; from the origin of its base above, to its attachment at the coccyx, it measures 4 feet 3½ inches. The weight is variously estimated at from 60 to 100 pounds. When the man sits down the tumour forms a circular cushion, which elevates him six inches or more in his chair. It is relaxed according as the weather is hot or cold. In the morning the skin is corrugated upon its surface. The colour of the skin upon the tumour, and a few inches upon the back, and down the thighs, is of a dark colour, resembling a mole. There are masses somewhat distinct, which appear glandular. It is free from pain, and the young man has enjoyed good health. He is of a nervous temperament, all his motions quick, and very sensitive to the slightest touch. When he came to the hospital, there was a large sore, formed by laying upon the right hip, and the callous and dead skin resembled thick leather. At four or five points were issues formed by the native doctors, who had applied cautery, with much accuracy, as if the particular place were essential.