Lectures.

CLINICAL LECTURE ON CHLOROSIS.

DELIVERED AT THE COLLEGE OF PHYSICIANS AND SURGEONS, NEW YORK.

BY PROF. T. GAILLARD THOMAS, M. D.

GENTLEMEN,—The patient upon whom I propose to base a few remarks to-day in regard to an affection of considerable interest is a young woman, eighteen years of age, a native of the United States, and unmarried. The account that she gives of herself is that she was perfectly well up to a few months ago, when she began to suffer with a pain in the left side, which has continued to a greater or less degree ever since, and which is always aggravated by exercise. More recently she has suffered from a pain in the back, and this is all that she complains of, with the exception that she feels weaker than she used to, this weakness being especially noticeable when she goes up-stairs. She is quite regular in regard to her monthly periods, although the flow is now so slight as barely to amount to a "show." Her bowels are regular also, she says, and she digests her food well.

We thus have all the history which the patient has to give, and I trust that while she has been answering my questions you have been watching her attentively, as you should always do while you are drawing out the history of the case, whenever a patient comes to consult you. You observe that the entire complexion of this girl is not only very pale, but that it is in addition of a somewhat greenish hue. Her pulse I find to be over 100 and quite small. It is by no means that of an inflammatory condition, because it is very soft and compressible. Auscultation of the heart reveals the existence of a loud basic murmur, which can also be heard along the course of the large blood-vessels. Her tongue is white, soft, and indented by the teeth, while at the same time it is found to be very pale, as are also the lips and inner surfaces of the eyelids. In fact, wherever we examine the mucous membrane, we find that the red globules of the blood do not show as they ought, so that she has the appearance of one who has lost much blood. So far from this, however, she has lost, as we have seen, scarcely any at all.

Such cases as this are usually brought to us for either amenorrhœa, obstinate constipation, or phthisis, the more or less rapid emaciation leading the patient's friends to suspect the latter trouble. What attracts our attention particularly, however, is the peculiar discoloration of the skin, and this ordinarily affords us the clew to the true nature of the case. The disease from which this girl is suffering occurs, as a rule, just at the age at which she has arrived, or, in other words, at the age of puberty,—say from sixteen to eighteen,—when all the functions undergo more or less alteration. The name which we give to the affection is one which has been in common use for centuries now.

Why is it that this girl is so weak and so pale, and why does she suffer so much from this pain about the cardiac region (which is, indeed, the principal symptom of which she complains)? Some might call it a case of anæmia or spanæmia, the latter term signifying not too little blood, but poor blood. If you were to pass through the wards of Bellevue Hospital, you would see spanæmia under a great variety of conditions. One patient, for instance, would look very pale, and, on inquiry, you would find that he was suffering

from albuminuria. In Bright's disease, not only is the albumen drained from the blood, but, in addition, there is actual deterioration of the life-giving fluid from a poison that is poured into it. Another patient would attract your attention by his appearance of spanæmia, but instead of having Bright's disease, you would find that he was suffering from well-marked malaria. In still another there would be no blood-poisoning whatever, but simply the result of loss of blood from hæmorrhoids, for instance. This is not strictly anæmia, however, for the man has just as much blood as ever, and it is therefore better to call the case one of spanæmia, as there has been merely an increase of the watery element of the blood.

But now, is the case before us one of anæmia or spanæmia? I do not think it is, but, on the other hand, regard it as something entirely different. This I can show you, I think, by comparing it with the other cases which have been suggested. Take the man suffering from malaria, for instance. Give him a sufficient amount of quinine, remove him to a perfectly healthy locality, feed him up well with nourishing food, and in a single month he would probably be almost if not entirely well. Or take the one suffering from bleeding hæmorrhoids. Tie his piles, and give him plenty of iron and other tonics, and in six weeks he will be perfectly well. But now take this girl (and I pass over the supposed case of Bright's disease, because the spanæmia seen in that case, like that of phthisis, is due to irremediable causes). Give her as much iron and as much food as you choose, and after months and months she will probably be scarcely at all improved.

What she is suffering from is a disease called by the old writers *chlorosis*, and long popularly known as the "green sickness," from the peculiar discoloration of the skin which characterizes it. Those who suffer from it usually menstruate regularly for a time after they first arrive at the age of puberty, and then this trouble begins to develop. As a general rule, it seems to be originally due to some strong mental or emotional disturbance, and nostalgia is regarded as one of its most frequent causes. The mother of such a young woman at first notices that she is getting very pale, and then becomes alarmed because her menses are diminishing to such an extent that she fears they will cease altogether. Instead of lasting six or more days, as before, there is merely a show of blood that does not continue for as many hours, perhaps. Other symptoms that generally follow are obstinate constipation, disordered primary digestion, irregularity and violence of the heart's action, and marked nervous disturbances.

Although the case now before us is not a very strongly marked one, its features are sufficiently distinct to enable you to obtain a fairly good idea of the affection in question; for unless you are pretty well informed in regard to it, there is great danger of mistaking the diagnosis in such cases. What, then, is chlorosis? I believe it to be a disease of the nervous system, and the latter, as you know, is always profoundly impressed at this period of life. While it is in this state of exaltation, as it may be called, something (we do not know exactly what) may possibly go wrong with it, and, as a result, we have this chlorosis, in which all the functions, and especially that of blood-making, are more or less interfered with.

But what is the use, it may be asked, of making a diagnosis between spanæmia and chlorosis? Because

not only is the prognosis, but also the treatment, very different in the two conditions. In simple spanæmia iron is of the very highest service, but this is not the case where chlorosis is present. Hence you will sometimes hear one physician say that iron does no good whatever in his hands, while another will claim that it is a most valuable remedy, and one that seldom disappoints him. In the present case I do not think that iron would accomplish much. Then I believe that the ganglionic system has been affected by some malign influence, although we possibly may not be able to discern precisely what the trouble is. The treatment that will answer in simple spanæmia is therefore not sufficient in such a case as this. The patient requires something more, and I feel sure that if she could only have a complete change of scene, with something new constantly to engage her attention, for a number of months, she would recover more quickly than if any other course were pursued. In cases where it is impossible for patients to go upon a prolonged tour, lesser changes in the manner of life are often of great service. Thus, an alteration of the surroundings at home, the removal from school, the change from the city to the country, and *vice versa*, all prove beneficial in certain instances. Besides, it is important to improve the nutrition in every way possible, and hence the patient should have as much food (especially of a kind that will make blood rapidly, such as milk, eggs, animal broths, etc.) as she can digest. Not that this will really reach the disease, but as poorness of the blood is one of the principal features, it should be our aim to counteract this as well as we can. To this end, therefore, the patient, instead of having three meals a day, should take about six, although the intermediate ones may be light, and consist principally of fresh un-boiled milk. Nine tenths of patients will tell you that they cannot take milk at all, as it makes them bilious and constipated, but with a little care they can all be educated so as to be able to take any amount of milk that is necessary for them. But when I say that food should be taken at frequent intervals I do not by any means ask you to overload the stomach, and care should always be taken that the diet should be of the proper character, and that too much nourishment should not be given at once.

There are also certain medicines which are useful as adjuvants, and among them I may mention iron, and such nerve tonics as the hypophosphites, strychnia, and arsenic. Small doses of Fowler's solution, I have found, will often do much more good than iron. In addition, a proper amount of exercise is imperatively demanded in most cases of chlorosis. It is not enough for the patient to walk, but she should also engage in such gymnastic exercises as light calisthenics. One form of such exercise which I have found of the greatest possible service is that which the rowing-machine affords, and I usually direct such patients to work on it, with a very light oar, for fifteen or twenty minutes three times a day. This, then, is the general plan to be pursued in chlorosis, and if it could be carried out in the present instance I think that in six or eight months we might see considerable change in the patient. We should not expect too rapid results, however, and I would be perfectly satisfied if she were entirely cured in the course of a year. Of course, were it simple spanæmia that we had to deal with, a complete recovery could no doubt be effected in a very much less space of time.

Original Articles.

DEEP ABSCESS OF THE NECK.¹

BY D. W. CHEEVER, M. D.

SUPPURATION of the connective tissue beneath the deep cervical fascia is of moderately frequent occurrence. The anatomical arrangement of the parts concerned makes it both insidious and dangerous. The neck is closely packed with flexible, mobile, and vital structures. The muscles are long muscles, slender and vertical, with the exception of the hyoid groups, which act as stays in preserving the central position of the hyoid bone. The neck revolves upon the vertebræ, and bends up and down and from side to side. The movements of respiration are, though slight, incessant, and the corresponding movements of blood in the great veins are largely influenced by the full or empty condition of the lungs and of the right auricle of the heart. The movements of deglutition are frequent and violent, though occasional, and as essential to life are only secondary in importance to those of respiration. To secure freedom of action the muscles of the neck, as well as the pharynx, œsophagus, larynx, and trachea, are very loosely joined together by what was formerly called areolar or cellular and is now called connective tissue. Particularly does the pharynx, carrying with it the larynx, slide with great freedom on the prevertebral group of muscles. And in swallowing quite strong vertical motion is communicated to the hyoid bone, to the cricoid cartilage and trachea, and to the œsophagus.

That this free motion may be carried on harmoniously and without displacement of individual parts the neck is enfolded in a strong membrane called the deep cervical fascia. It compresses the sterno-mastoid muscles, forming the sheath of the great vessels, and below swings the arch of the aorta and the pericardium by a continuation of its fibrous membranes. Attached behind to the spines of the vertebræ and ligamentum nuchæ, the deep fascia first forms a covering for the whole front of the neck, of varying density, and then sends processes in between the muscles. It is attached above to the lower jaw, below to the clavicle and sternum, and also takes a strong hold of the styloid process under the name of stylo-maxillary ligament. While thus bracing and compressing the muscular system of the neck and the carotid artery and internal jugular vein, it leaves the trachea and œsophagus free behind to slide on the bodies of the vertebræ, and it forms no boundary between the neck and the anterior mediastinum or the apices of the pleural sacs in the subclavian triangles. It follows from this that if fluids, either inflammatory or hæmorrhagic, should be poured out in the cellular interspaces of the neck they are firmly shut in from reaching the surface by the fascia, but not at all restrained from burrowing and gravitating behind and around the œsophagus and trachea into the thorax. It follows also that large amounts of inflammatory or other effusion speedily fill and distend the sac of the fascia, and then press profoundly on the great vein, the vagus nerve and the pharynx, the œsophagus, and back of the trachea.

This is the anatomical history of deep abscess of the neck.

¹ Read at the meeting of the Boston Society for Medical Improvement, October 11, 1880.