Lectures.

CLINICAL LECTURE ON SOME OF THE RESULTS OF CHRONIC INDURATION OF THE LUNG.

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

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GENTLEMEN, — We have here a lad fourteen years of age, who comes to us to get relief for headache and bleeding from the nose, to which he is subject, and it must be our endeavor to find out, if possible, what the condition is upon which these symptoms depend. The history which he gives of himself is a very meagre one, and the only acute disease that he tells us of is an attack of inflammation of the lungs which he is said to have had when he was very young. You observe that he looks markedly anæmic, and that his general appearance is altogether that of one not in the enjoyment of good health.

When his chest is stripped you notice that there is more or less depression in the infra-clavicular spaces, and that there is a marked prominence of most of the external veins of the thorax. From the latter circumstance we naturally look for some obstruction in the lungs or heart, to which such a condition may be attributed. This enlargement of the veins indicates passive local congestion, and the headache of which he complains might well be dependent upon a similar condition about the head or brain. If there were, in conjunction with this, passive congestion of the pharynx a catarrh would result, and as the nasal mucous membrane is exceedingly well supplied with veins the nose-bleeding might easily ensue. Epistaxis is, therefore, very common in diseases of the heart and lungs.

But this state of passive congestion is not confined to the upper part of the body. The abdominal circulation is also impeded in consequence of such disease, which produces more or less disturbance there also, as we shall no doubt find in the present instance. In boys and girls epistaxis is not at all uncommon as a result of merely sitting for a considerable time with the body bent forward at school. This is attributable to the interference with the abdominal circulation caused by the position in which they are accustomed to sit; and hence in such cases, where there is frequently-recurring nose-bleed, it is often sufficient simply to take the children away from school and allow them to run freely about in the open air.

But, as I remarked before, in a case like this, where there is chronic enlargement of the superficial veins, we must look for the source of the trouble in some disease of the thoracic organs, and we will therefore institute a careful and thorough physical examination here. Beginning with the spleen, we find by percussion that it is considerably enlarged, measuring about four inches in length. This may possibly be the result of some former disease, such as intermittent or typhoid fever (although we have the history of no such attack), or it may be due to venous obstruction.

When we come to examine the liver we find that it is markedly enlarged, and that there is very considerable tenderness on pressure over the hepatic region.

On palpation the area of tenderness is somewhat circumscribed, occupying a sort of parallelogram about four inches in length and a little less in width, whose upper corner reaches to the bottom of the ensiform cartilage, and is bounded on either side by the lower border of the ribs. When percussion is resorted to, however, it is found that this area of tenderness becomes much greater in size, extending more than one inch lower (almost to the umbilicus), and also beyond the border of the ribs to the right, in the ordinary position of the right lobe of the liver. We should say, then, that there was some abnormal condition about the liver which affects the entire mass of the organ, which is greatly enlarged beyond its usual limits.

We notice also that the impulse of the heart can be perceived over an unusually large area, and on mapping out the heart by means of its percussion-dullness, we find at once that the organ is considerably enlarged. The dullness, however, does not extend very far to the left, though it reaches beyond the right edge of the sternum. When the ear is placed over the cardiac region we get a different murmur on both sides of the heart; but this I should conclude was due to the general anæmic condition of the lad rather than to any organic lesion. In young children it is very rare to find sufficient anæmia to produce such a murmur, or, rather, functional murmurs are rare in young children; but here, you must remember, the patient is no longer a child. We must look, therefore, for some other cause of the cardiac hypertrophy than an organic lesion. Sometimes this condition is due to over-exercution on the part of the heart in consequence of a long-continued obstruction of the lungs which has resulted in their partial imperviousness. On account of this the heart is obliged to do so much work in overcoming obstacles that it becomes permanently enlarged. Hence, in this case, if we should find present a pleuro-pneumonia of any extent, it would amply explain the condition of the heart.

On percussion we meet with a certain amount of dullness, both anteriorly and posteriorly, all the way down the chest on the right side; and on auscultation on this side we find also diminished respiration, both front and back, though somewhat coarser in the clavicular region than posteriorly. The signs point, then, to more or less solidification and induration of the lung, and it is altogether probable that there has been some thickening of the pleura also, though this does not appear to be the case at present. In this connection you will recall the fact that an attack of inflammation of the lungs was mentioned as having occurred in early life.

But, as has been indicated, the vena cava inferior, as well as the cava superior, is affected by this obstruction in the lung, and hence the trouble in the liver is explained. When the impediment to the circulation is very marked there is not only dilatation of the vessels, but effusion also results, so that the liver becomes permanently enlarged, as well as the heart. The liver would swell very much more easily, indeed, were it not for its comparatively unyielding peritoneal covering. As it is, the latter is put upon the stretch, thus giving rise to no little pain, because it will not expand to the same extent as the liver itself.

As to the condition of the spleen found in this case, this is due not so much to the trouble in the lungs or heart as to the abnormal state of the liver. You know

that in the third stage of cirrhosis of the liver, with contraction, enlargement of the spleen is exceedingly apt to occur, and the same result has here followed the engorgement of the organ produced by the thoracic obstruction.

What the boy comes to us for is simply to have his epistaxis relieved. If this is profuse it ought to be stopped at once, on account of the drain which is thus kept up upon his system. In such cases it is a very bad plan to wash out the nose freely with water and weak astringents, since this interferes with coagulation, which is essential for the control of the hæmorrhage. Styptic cotton (which is steeped in perchloride of iron), or the persulphate of iron would be a serviceable application. The closing up of the entire nasal tract by means of Belloc's canula is a safe procedure, and sometimes is necessary to effectually stop the bleeding. In connection with such measures we must not neglect to take care that there is no tight pressure about the body, and that the patient takes very deep inspirations, so as to fill the chest to the utmost extent, in order that there may be as small an amount of blood as possible for the nose.

The indications here are to do away, primarily, with the obstruction in the lungs, and, secondarily, with that in the heart and liver. The patient has had interstitial trouble in the lungs for twelve years, and though there is now no amphoric respiration, and not even bronchial breathing, it has been sufficient, as we have seen, to set up very considerable trouble in his system at large. If such pulmonary trouble were of syphilitic origin I would recommend mercurial inunction; but in this case there is no evidence whatever of this being the case, and such a course of treatment would not be of any service, especially as the boy is already very anæmic. On account of his anæmic condition iodine would also be contra-indicated, unless it were given in the form of the syrup of the iodide of iron. He certainly requires iron, and this is a preparation which is easily digested; but perhaps the most appropriate in such a case as this would be the pyrophosphate or dialyzed iron. The tincture of the chloride of iron would not answer, as it is a vascular stimulant.

Then the heart needs attention. When there is epistaxis depending upon mitral regurgitation it can often be stopped soon by the administration of iron and digitalis. A few small doses will often regulate the action of the heart in cases like this, and a lad of this age might safely take from five to six grains of it daily, or two minims of the fluid extract three times a day. On account of the stomach I would also give subnitrate of bismuth here.

Finally, as to the liver. The possibility of the presence of hepatic abscess may have occurred to some of you; but I find now that the temperature is only ninety-nine and a half degrees, while it would no doubt be considerably higher if such were the case. But though there is no abscess, there is, as we have seen, a decided irritation of the organ, producing great swelling and consequent stretching of the peritoneal covering. In normal digestion you know that the liver will swell more or less after every meal. With such a condition as is here present there is very apt to be some gastric catarrh, and therefore the bismuth will no doubt be of considerable service. Cold applications should be made over the region of the liver, and I would recommend that for the first day or two cold water should be used in this way continuously, and after that for a few hours

of each day. We have thus gone over a pretty large field in connection with this case, but I trust that you will feel that the time thus devoted to it has not been altogether misspent.

Original Articles.

DESCRIPTION OF A DOUBLE MONSTER.¹

BY A. W. BLODGETT, M. D., BOSTON.

FETUS DICEPHALUS, HYDROCEPHALUS, ANENCEPHALUS, MICROCEPHALUS.

MRS. R. E., a native of England, came to America while quite young; has always been in good general health. She is below the average height, is small in every way, but is very active. Married eight years ago, and in August, 1874, I was called to attend her in her first confinement. The labor was normal in all essential particulars excepting the fact that the head was slow to descend into the pelvis owing to a narrow condition of the upper antero-posterior diameter, it being reduced to about two and one half inches. After waiting a reasonable time forceps were carefully applied, under ether, and the head was easily brought down and delivery at once accomplished. The child, a small girl, was in a somewhat asphyxiated condition, but was revived and is still living. The mother was considerably prostrated, having suffered a considerable rupture of the perinæum, and was for some days unable to micturate, but eventually made a good recovery. In November, 1875, I was again called to attend this patient during a miscarriage at the fourth month, brought on apparently by overwork. From this she made a rapid and complete recovery. November 25, 1875, I again attended this lady in confinement at full term. She had been very well during her pregnancy and took entire charge of all her household affairs until the night of her confinement. Pains had been severe for four hours, the os was slowly dilating, the occiput was toward the left acetabulum, the membranes not ruptured. After three hours the membranes were ruptured and the head descended somewhat, but became firmly fixed upon the brim of the narrow pelvis and did not subsequently move, although the pains were vigorous. Six hours later forceps were applied, under ether, and after about fifteen minutes' hard labor a living child was extracted. The child, a large boy, was deeply asphyxiated but was resuscitated and is still living. Considerable hemorrhage took place upon the delivery of the placenta, but was controlled by means of brandy and ergot. The perinæum was slightly lacerated and the child's head sustained considerable bruises, but these soon disappeared without any consequences. The mother made a somewhat slow recovery owing to the strain, and pressure in the pelvic region, but she escaped any serious disease, and in a few weeks was as well as before her confinement. January 3, 1881, I was again summoned to attend this patient in childbirth. This pregnancy had been more burdensome to her than any previous one, owing to an unusual protrusion of the abdomen forward over the pubes, a so-called "pendulous abdomen." The prominence was so great that the axis of the uterus inclined forward at about the angle of 45°. The discomfort of the patient was no doubt materially increased by the

¹ Read before the Obstetrical Society of Boston and published at their request.