

ual disturbance on simple physiological principles. By the operation a part of the visual centres were destroyed, rendering the central district of the retina incapable of performing its function. That this last was the case is shown conclusively by Munk's own statements. The animals were in a condition analogous to that of a man with central scotoma while peripheral vision is preserved. Such a condition readily accounts for all the phenomena observed, without recourse to any new hypothesis.

But while the theory which Munk based upon his observations is fallacious, the observations themselves, whose accuracy is unquestioned, are of great value in another direction, inasmuch as they give a strong confirmation, not only of the partial decussation of the optic nerves in the higher animals, but also of the idea that the proportion of fibres which do not cross to the opposite eye is the greater, the less is the relative divergence of the eyes.

CHROMATIC HEMIOPIA WITH APHASIA.

Galezowski described, a few years ago, three forms of visual affections occurring with aphasia: amesic amblyopia, where, although there is no diminution of acuteness of vision, the patient can neither read nor write from lack of memory of letters, and there is also loss of memory of colors; homonymous hemiopia, a very frequent defect; and atrophy of one optic disk.

He now¹ reports a case essentially different from the preceding forms, the lesion being presumably of syphilitic origin. The patient had right hemiplegia and aphasia, from which he recovered, but the following year was affected with incomplete left hemiplegia, aphasia, and paralysis of the left facial. He complained of enfeeblement of sight, but nothing abnormal was to be seen in the eye, acuteness of vision was perfect, the field of vision was normal, and his difficulty in reading and writing appeared attributable only to rapid tiring of the mental faculties. The remarkable part of the case was that in the internal half of the field in each eye, from a short distance to the inner side of the point of fixation, all colors were confounded with white except ultramarine blue, this last being well recognized.

Thus the patient, preserving perception of colors in the central part of the field, had lost it in the two internal halves, making crossed hemiopia for colors.

Galezowski thinks the phenomenon cannot be explained by an alteration of the tracts or of the corpora geniculata, but that the syphilitic lesion must have been situated at the spot where the external fibres of the optici, those which do not cross in the chiasma, unite behind the tubercular quadrigemina in the place indicated and supposed by Charcot.

SPONTANEOUS PULSATION OF THE RETINAL ARTERIES.

Of seven cases of pronounced exophthalmic goitre Becker² found in all but one spontaneous pulsation in the retinal arteries. In an eighth case, with but slight enlargement of the thyroid, and in which there was only occasional though severe palpitation, and now and again some exophthalmos of the left eye, the arterial pulsation was seen in this eye during the exophthalmos, but was not present in the right. This case is said to have been cured, and one of the others very

much improved, by the employment of the constant current.

The occasional occurrence of the arterial pulsation in healthy individuals may be attributed in some instances to a particular arrangement of the vessels; in others it seems to find an explanation in an atonic condition of the vessel walls. Thus it is frequently to be observed in chlorotic girls. The idea that the pulsation in such persons, also in exophthalmic goitre, is dependent upon paralysis of the nerves of the vessels is supported by the case of a lady with a variety of nervous symptoms, in whom the pulsation was now present in one eye, now in both, and again in neither. Here there was no heart affection, but her physicians had repeatedly observed that from time to time, on various parts of the surface of the body, larger or smaller red or even bluish patches appeared, remaining visible for minutes, hours, or days, and then vanishing without leaving a trace. These must have been caused by vaso-motor disturbances.

Hospital Practice and Clinical Memoranda.

CLINICAL MEMORANDA.

BY PROF. A. JACOBI,

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"How old is this boy?"

"Fifteen years."

"What is the matter with him?"

"He has the nose bleed, and he has a pain in the pit of his stomach."

"How often does his nose bleed?"

"Twice a day."

"And how long does your nose bleed at a time?"

"From ten minutes to three quarters of an hour. It comes drop by drop; never in a steady stream."

"And how long have you had this pain?"

"Ever since the bleeding at the nose commenced."

As you look at the boy you see he is sallow, anæmic. The subclavicular regions are depressed. The veins of the upper portion of the thorax are rather larger than normal. There must be some reason why they are enlarged. There must be some impediment to the circulation so that the cava superior cannot discharge its contents into the heart. There must be some obstacle either in the lungs or in the heart. If you find not only that these veins are of large size, but also that it is only the veins of the upper portion of the body which are enlarged, you would not then be surprised to find headache from passive congestion, also pharyngeal catarrh from the same cause, and also a passive congestion of the mucous membrane of the nose. There is in the Schneiderian membrane an extensive venous net-work. If it is overfilled with blood the smaller capillaries rupture easily, and so it is that nose bleed is a very common occurrence. So anything which obstructs the circulation may cause the nose to bleed. Constipation may give rise to it by the influence which that condition exerts on the abdominal circulation. Nose bleed is common in school-children who stoop over a great deal, for the same reason, because a stooping posture obstructs the abdominal circulation, and you can often stop a habitual epistaxis in such cases only by taking them out of school, and letting them run about. It is due to the sedentary

¹ Gazette des Hôpitaux, February 21, 1880.

² Monatsblätter für Augenheilkunde, January, 1880.

life. When, however, the veins are permanently enlarged, as they seem to be in this case, then you must look for something in the heart or lungs which would give rise to this obstruction. Let us examine this boy's body, and see what we can find by percussion and auscultation. The spleen measures some four inches by three and one half inches, which is too large. This hypertrophy may be due to impeded circulation, or it may be the result of malarial complications, or it may be an enlargement following typhoid fever.

"Have you been sick lately?"

"I had inflammation of the lungs three years ago."

Let me continue the physical examination. At a point just below the margin of the ribs on the right side, I find pressure gives him pain; also here is another painful region in the epigastrium, just beneath the ensiform cartilage, and another on the left side and in the abdominal cavity, in a line with the umbilicus, and half way between that and the ensiform cartilage. As I mark out these various places with the crayon, there is, you see, a triangular territory over which any considerable pressure causes the boy to wince. Pressure on the bones or intercostal spaces gives no pain, but as soon as I press below the margin of the last rib the pain is evident. The pain corresponds exactly to the portal region, the region where the gall ducts and portal vein run, and also over the left lobe of the liver.

"You go to school, I suppose?"

"Yes, every day."

"For how long a time?"

"Five hours a day. I have no recess."

That is altogether too long a period for children to remain in a sitting position, stooping over their desks, as they do.

As I percuss the region of the heart, I see at once that there is some enlargement, and it does not extend to the left, but the dullness is beyond the right margin of the sternum. If there is enlargement it is, then, enlargement of the right side of the heart. That might be the result of regurgitation or incompetency of the mitral valve, and if we find a murmur present in this case the diagnosis is clear, provided it does not extend over towards the aortic orifice. If we find no murmur we must look for some other cause for the hypertrophy. The heart sounds are not quite normal, but there is no murmur. If I hear no murmur in the carotids then I shall decide that it is functional. I hear about an equal murmur. I think it is functional. It is necessary to have a very high degree of anæmia in a child to produce an anæmic murmur, and you ought not to call murmurs in a young child functional, for they are almost always organic; but in a boy of this age—fifteen years old—you may reason pretty much as if he were an adult, and I think the sounds which I hear are functional. The hypertrophy might be the result of overexertion, for overexertion will produce hypertrophy of the heart muscle, just as it will of a muscle in any other part of the body. Overexertion on the part of the heart might be occasioned by any great impediment to a free circulation of the blood in the lung. If a large portion of the lung is impermeable to the blood, it requires very great labor on the part of the heart to get rid of its blood. In disease of the lung the heart has to labor hard to get the blood through the lung, and so when you have chronic disease of the lung involving partial permeability, the heart has to overexert itself to force the blood onward,

and as a result of this overexertion you have hypertrophy. As I percuss the chest I find that there is a certain amount of dullness anteriorly and posteriorly over the whole of the right side, and there is also diminished respiration posteriorly, and coarse respiration in the anterior portion of the lung, pointing to induration of pulmonary tissue. There is also some thickening of the pleura, but not much, and in different portions of the lungs we can say from the different character of the sounds that there is a difference in the character of the induration. This change in the lung tissue is the result of a pneumonia, and such a condition is competent to produce hypertrophy of the heart from the obstructed circulation. It also accounts for the persistent epistaxis from which the boy suffers, and for the same reason. The pain in the region of the liver is due to the same cause; the vena cava inferior being obstructed, there is a swelling of the liver from that cause. In obstructed circulation from any reason the liver is almost the first organ in the body to swell, the numerous blood-vessels and veins dilating from the backward pressure of the blood, and so increasing the size of the organ. When the obstruction is temporary the organ diminishes in size rapidly, but when the impediment is permanent the dilatation becomes chronic and effusion takes place, and as a result real chronic hypertrophy of the liver. Now when the liver increases in size it is evident that the peritonæum which envelops it must stretch, and this stretching, together with a hyperæmia of the superficial veins, gives rise to the pain in the region of the liver, which is probably due to the fact that the peritonæum does not stretch as rapidly as the liver swells. On percussion, the painful region is seen to correspond exactly to the area of the liver, and it is evident that there is also an enlargement of the liver. Thus it appears that as a consequence of the dilatation of the blood-vessels the contents of the peritoneal bag are too large for the bag, and there is pain as a result. The spleen is also enlarged. It is not a very usual thing to find the spleen enlarged as a consequence of heart or lung trouble. When it does exist, accompanying these diseases, it is not direct, but the result of the liver trouble. A chronic enlargement of the spleen is also consequent upon the shrinking process which takes place in cirrhosis of the liver.

"Have you ever passed blood?"

"Yes, four summers ago."

"Was it of a red color?"

"Yes."

"Did you pass much?"

"No, it came only in streaks. It lasted all summer."

Red blood would not be the result of hæmorrhages in the upper portion of the intestine following morbid processes in the liver. When blood passes from the upper portion of the intestinal canal it is black, tarry; but when it comes from the rectum it is red. The liver, however, might have been the indirect cause of these bloody evacuations, because obstruction of the liver and congestion of the hæmorrhoidal vessels go hand in hand. If, however, he had bloody specks in his passages then we ought to have the following suspicion, namely, that they might have been due to merely local and superficial ulcerations in the rectum, from which there might have arisen a metastatic abscess in the liver. Most of the hepatic abscesses we meet with in our climate are the result of dysenteric ulcerations. A hepatic abscess, however, does not

usually last four years, and there ought to be more symptoms of constitutional disturbance, such as elevation of temperature, whereas his temperature is normal. I do not think that there is any such condition here; nevertheless it is a suspicion which ought not to be lost sight of. The boy says that he has also spit blood, but I hear no cavernous or bronchial respiration, and these trifling hæmorrhages are apt to come either from the pharynx, trachea, or nose.

Not what the patient comes here for is to be relieved of this epistaxis, and what must we do for that? If it is copious it must be stopped. It is a bad plan in such a case to use insufflation of ice water or simple cold water, for the openings in the capillaries are closed up by coagula, and the more you wash out the nose the more likely are you to remove these plugs which stop up the openings in the blood-vessels. Oftentimes astringent injections do good, and for that purpose you may make use of solutions of the subsulphate of iron, insufflations of tannic acid, or the application of styptic cotton. In bad cases, where these remedies are of no avail, you will have recourse to Belocque's tube for plugging the posterior nares. So much by way of local treatment.

As regards the condition which is the primal cause of these various symptoms, you will attend to the circulation and see that it is free, that the boy wears nothing tight about him. Make him respire freely and fully, and fill his lungs, so that as much blood goes to the large cavities of the body as possible, thus relieving the congestion of the nasal and pharyngeal cavities. The indication is to do away with the cause of the obstruction, which in this case is in the lungs, and secondarily in the heart and liver. The lungs have been diseased a long time, and at this late period it is not possible that the interstitial inflammatory products can be entirely removed. If they were the result of syphilis, of course mercurial treatment would do good, but that is not the case here. Besides, the boy is anæmic, which would contra-indicate a protracted mercurial treatment. Neither the iodides of potassium nor of sodium would be suitable in this case. The iodide of iron, however, may do good, which is easily digested. The condition of the heart must be attended to, and in such cases a combination of iron and digitalis often relieves the epistaxis at once. In mitral trouble it will often cease after the first few doses. A boy of his age will take at least five or six grains of digitalis a day, or of the fluid extract two minims three times a day.

The muriate of iron is not exactly contra-indicated, but yet its excitant effect is to be feared, and I think it ought not to be given because it is certainly a vascular stimulant. Instead, we may order the saccharated carbonate of iron, or the new preparation, dialyzed iron, or the pyrophosphate of iron in five grain doses combined with the subnitrate of bismuth; for certainly his stomach must be in a bad condition because of the condition of his liver. There must be venous obstruction there. If there was an abscess of the liver here, the temperature would certainly be higher than $99\frac{1}{2}^{\circ}$ in the rectum, but, as I said before, we ought to be sure that we can exclude that. The more suspicious you have the better for your case, for you have only to exclude them if they prove erroneous. As there is here only a swelling of the liver, and not as yet probably serious structural changes, I should rely for that on the digitalis and on cold applications, changing

them frequently, say three or four times a day. Bismuth will relieve the gastric catarrh.

The liver will swell after every meal when in a normal condition; when it is in an abnormal condition it will swell more. Of course the general comfort is interfered with in that case because of the abnormal condition of the stomach. You must rely, however, for treatment on the palliatives I have suggested and on the general directions which have been given as regards the condition of the primal disorder in the lungs and heart. Let him avoid stimulants and take digestible food only and slowly, milk with salt, milk and barley, milk and oatmeal, an egg or two soft boiled, beef-tea, and toast.

Recent Literature.

Contributions to Orthopædic Surgery, including Observations on the Treatment of Chronic Inflammation of the Hip, Knee, and Ankle Joints by a New and Simple Method of Extension, the Physiological Method, and Lectures on Club-Foot. By JOSEPH C. HUTCHINSON, M. D. New York: G. P. Putnam's Sons. 1880.

A neat little volume bears this title. The latter half is an essay on club-foot and is an addition to the American literature of the subject, being more thorough than Dr. Sayre's monograph, with which in style and size it can be favorably compared. The anatomical details and the principles of treatment are well presented. The author recommends the use of plaster-of-Paris bandages, as furnishing an efficient and convenient means of retention; he insists on the importance of manipulation as an essential auxiliary, believes in the use of tenotomy except in the simplest cases, restricting, however, the operation to the division of the tendo Achillis; he advises early treatment. Unlike many of the best American authorities, he defers any attempt to stretch the divided tendon until four days after tenotomy.

The first half of the book contains a description of Dr. Hutchinson's well-known method for the treatment of joint disease, already mentioned in the JOURNAL. Great credit is undoubtedly due Dr. Hutchinson for his originality in his advocacy of the "physiological" method; it is to be regretted, however, that in presenting an innovation in surgery he has not collected a greater number of confirmatory facts. No cases are mentioned of disease of the knee or ankle joint treated according to the author's method. Of the seven cases of hip disease treated successfully, two are apparently light cases (perhaps synovitis of the hip joint, in which the course is frequently short); the others are not reported as fully as is desirable, nor is the result some time after discontinuance of treatment given. The fact that the kindred affection, chronic disease of the shoulder, elbow, and wrist joints, has been treated according to the "physiological" method by the afflicted themselves from time immemorial with but moderate success does not seem to have occurred to Dr. Hutchinson. Although the writer states that mechanical extension, including the weight and pulley, "irritates the muscles and stimulates them to contraction," he advises its employment during the acute stage, when the greatest care should certainly be employed to prevent such contraction. He considers apparatus cumbersome, and to be abandoned, as the desired re-