Cheatham (W)

A PECULIAR AFFECTION OF THE NEURO-RETINAL CIRCULATION.

By W. CHEATHAM, M. D.

(*With a wood-cut.*)

May H., age fifteen, a rather well-developed girl, anæmic in appearance, presented herself October 17, 1889, with the following history: On awaking on the morning of October 17th she discovered she was blind in her right eye. She has had frequent attacks of so-called follicular tonsillitis, having just recovered from a severe attack. When sick reads lying in bed; has done a great deal of it lately. She has never menstruated. V: R = o, L = $\frac{20}{50}$, with a + $\frac{1}{60}$c axis vertical = $\frac{20}{20}$. The nerve and retina present such an appearance (except the vessels) as seen in embolism of central artery of retina. There is extensive exudation into nerve and retina, with a cherry-red spot at macula lutea. The retinal vessels present a very peculiar appearance. The arteries near the nerve were normal in color and size; some of them about the equator of the eye appeared plugged with very dark blood; one branch given off from a main artery below was entirely empty; most of the arteries on the nerve, and for a short distance off, had white streaks along each side. The veins from the periphery to the equator were filled with clotted blood, as the arteries were, so it was difficult to distinguish between them. A piece of the clot, about two or three lines in length, would break off from the large clot in the vein above, wash down some distance, disappear under a small exudation, and appear on the other side as a fine dust or powder, carried by a yellowish fluid, and washed out by this fluid into the central vein. As this piece of clot disappeared, the large clot did not apparently decrease in length, so it must be slowly moving. Most of the veins below had apparently no current, but were filled with small clots as they neared the optic nerve. I

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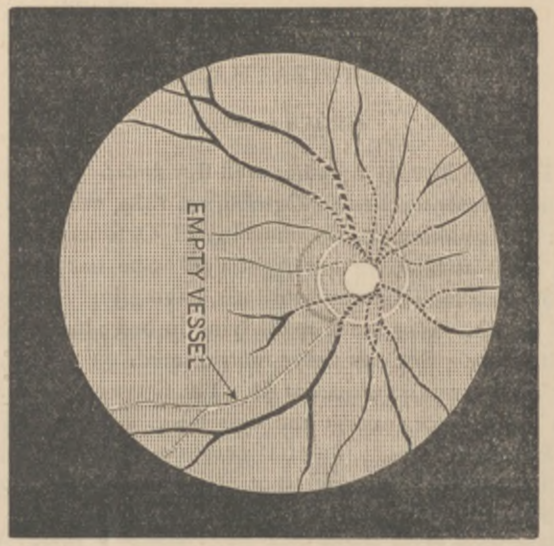
ordered Flexner's syr. albuminate iron, with quinine and strychnia, and pot. iod. There was no heart complication. Mr. J. A. Flexner examined her blood in my office, and found the corpuscles normal in quantity, but carrying only 67 % of hæmoglobin. He also found her urine deep yellow in color; sp. gr. 1,015; no albumen; oxalate calcium present; Indicans and pus present; reaction acid; sediment abundant; sugar, uric acid, phosphates, bile, blood, and mucus absent; pavement-epithelium abundant; hyaline casts present, but not numerous; urea only 1.6 %.



October 18th.—The exudation has increased, the outlines of the nerve very much less distinct, and the cherry-red spot at macula is nearly gone; the retinal circulation is better; the artery below, which was better yesterday, now fills every few minutes, then again empties; both arteries and veins pretty well filled, but the current can still be seen in the veins flowing slowly, and now the current in the arteries can be seen distinctly. No pulsation in either arteries or veins; the clots in the extremities of the vessels are nearly gone; the blood in both veins and arteries appears finely granular.

October 19th.—Exudation still increasing; current in vessels can still be seen; artery, which was empty, now full.

October 21st.—Exudation increased; two small hemorrhages near macula, vessels all full, and no current discernible.

October 23d.—Exudation much less. R V = 0. L V = $\frac{20}{20}$, with correcting-glass.

November 20th.—Nerve and retina atrophied.

This case does not appear to me to have been embolic in character in the beginning, but more like one in which a diseased condition of the vessels themselves was the original cause; it answers more closely to some of the series of cases reported by Dr. Ole Bull, under the title, "Pathological Alterations of the Retinal Vessels," at the Ninth International Medical Congress.