

by the army surgeons on the soldiers, on the ground of its tendency to do harm. To many in the community there may be no corresponding or compensating harm, to others the evil is great, from such a degree and kind of suspension of the higher cerebral activities—from losing their grip, so to speak—and one cannot yet fairly estimate its general effect on the community.

It is better, especially for people of the neuropathic temperament, to overdo, and, at times, to suffer some sleeplessness in consequence, than to sink into deeper and deeper inertia while striving to avoid every effort which brings discomfort with it, or after it, just as it is not always best to shut out every sound, even if disturbing to sleep. Many do best to bear a certain amount of wakefulness, as others must suffer pain, when our help avails much in giving strength and courage.

Stimulating tonics, phosphoric acid, phosphates, hypophosphites, quinine, strychnine, iron may prove serviceable, but certain patients exhibit a marked intolerance of medicines and alcohol.

(To be continued.)

#### EIGHT CASES OF LARGE, PULSATING ARTERIES ON THE POSTERIOR WALL OF THE PHARYNX.<sup>1</sup>

BY J. W. FARLOW, M.D., BOSTON.

IN the *Boston Medical and Surgical Journal* of March 31, 1887, I reported five cases of visibly pulsating arteries of the pharynx, which I presumed to be abnormally large ascending pharyngeal arteries. Since then I have seen seven other cases, and Dr. F. I. Knight has kindly sent me the notes of a case in his own practice.

**CASE I.** Mrs. M., forty-seven years of age. Some chronic pharyngitis. A large, pulsating vessel seen on the posterior pharyngeal wall, where the posterior pillar of the fauces of the left side joins the pharynx. The vessel had an oblique direction.

**CASE II.** Mrs. D., thirty-five years of age. Pharyngeal membrane thin and atrophic. A large pulsating vessel on the right side of the pharynx.

**CASE III.** Mrs. C., fifty-one years of age. A large, pulsating vessel on the left side of the pharynx.

**CASE IV.** Mrs. W., thirty-eight years of age. Dry throat for two years. A pulsating vessel on each side of the pharynx, about half way between the uvula and the sides of the pharynx. The pulsation seemed not quite as strong as in the radial of the same patient.

**CASE V.** Mr. M., forty-eight years of age. Pharyngeal membrane thin. A good-sized pulsating vessel on the right side of the pharynx. This is the only instance I have seen in a male.

**CASE VI.** Girl, fourteen years of age, sent to me by Dr. E. D. Spear. There was marked hypertrophy of the glandular tissue of the pharynx and vault and a distinctly pulsating vessel was seen on the right side. Dr. Spear had wisely congratulated himself on having noticed this vessel, otherwise, a removal of the adenoid tissue might have given rise to an uncomfortable hemorrhage.

**CASE VII.** Mary F., aged seventeen years. Atrophic pharyngitis. A pulsating artery on the extreme right side of the pharynx.

**CASE VIII.** Lady, sixty-eight years of age, was the case seen by Dr. Knight. In the pharynx he observed the marked pulsation of two arteries, one on each side and approaching to within about one-quarter of an inch of each other. The right was decidedly the larger.

In the *British Medical Journal* of September 17, 1887, Dr. E. Creswell Baber gave an account of a case that he had seen, where there was a pulsating artery of the pharynx.

It has seemed strange to me that so large a number of such cases should come to my notice. Possibly I have been, more than usual, on the look-out for them. I am inclined to think, however, that a thorough inspection of the sides of the pharynx will bring to light a greater number of instances than have been hitherto reported.

#### REPORT ON MEDICAL CHEMISTRY.

BY WILLIAM B. HILLS, M.D.

##### RECOGNITION OF BLOOD IN MEDICO-LEGAL INVESTIGATIONS.

FOR the extraction of blood-stains, Klein<sup>1</sup> recommends water saturated with carbon dioxide (Struve's process) as giving the best results. The stained spot is cut out, placed in a test-tube with two to three cubic centimetres of distilled water, and treated with a slow stream of carbon dioxide. Stains which are only a few hours old are usually completely extracted in five to ten minutes; those up to two weeks old require fifteen to twenty minutes; those up to one month, about thirty minutes and those six to eight weeks old, from thirty minutes to one hour. Whitish or yellowish masses of fibrin are left unaffected. The clear, yellowish or brownish colored solution thus obtained is examined spectroscopically. In the case of stains extracted immediately after drying, the two absorption-bands of oxyhemoglobin in the yellow and green portions of the spectrum are alone visible. If the spectrum is shaded up to the red, the methemoglobin band in the red is easily recognized. The intensity of the absorption-band in the red increases with the age of the stain, and in stains fourteen days to one month old it is nearly as intense as the bands in the yellow. Stains five or six months old give solutions in which the band in the red is, at times, the only one visible; and this was always the case in stains six to eight months old. Such old stains, after treatment with carbonic acid water for some hours, still leave behind a brownish-colored residue which, freed from adhering fluid by means of blotting-paper, gives up to glacial acetic acid or to ammonia after about ten minutes treatment a brown coloring matter whose acid solution in thick layers shows plainly the absorption-band of acid hamatin. Both the ammoniacal and acetic acid solutions, when treated with ammonium sulphide and twenty per cent. soda solution in slight excess, give the spectrum of reduced hamatin.

Solutions of old blood-stains in carbonic-acid water, which have a reddish-brown color and show the methemoglobin band in the red, are immediately changed by treatment with an aqueous solution of hydrocyanic acid (1-2 drops of a 1-1,000 solution, or 12-15 drops of a 1-10,000 solution). The solution

<sup>1</sup> Read before the Boston Society for Medical Observation, May 6, 1890.

<sup>1</sup> *Zeitschrift für Analytische Chemie*, 1889, page 389. Inaugural Dissertation, Dorpat, 1889.