

it is impossible to produce maximum dilatation by a single instillation of the one-fortieth of a grain of the same drug.

4. Maximum dilatation of the pupil is produced by a single instillation of either the one-fortieth or the one-twentieth of a grain of sulphate of atropia.

5. The utmost action of a single instillation of the one-fortieth of a grain of hydrobromate of homatropine upon the ciliary muscle, is attained later and lost sooner than the full paralysis occasioned by a single instillation of an equivalent amount of sulphate of atropia.

6. The utmost action of a single instillation of the one-twentieth of a grain of hydrobromate of homatropine upon the ciliary muscle is attained sooner and more quickly lost than the full paralysis occasioned by a single instillation of an equivalent amount of sulphate of atropia.

7. The mydriasis of a single instillation of either the one-fortieth or the one-twentieth of a grain of hydrobromate of homatropine is not so quickly produced, and is of shorter duration than that of a single instillation of either the one-fortieth or the one-twentieth of a grain of sulphate of atropia.

8. *Complete* ciliary paralysis can be obtained by a single instillation of the one-sixtieth of a grain of hydrobromate of homatropine at the time of the utmost action of a single instillation of the one-twentieth of a grain of hydrobromate of homatropine, thus allowing ametropia to be accurately determined.

9. A single instillation of either the one-fortieth or the one-twentieth of a grain of hydrobromate of homatropine, by reason of its transient effect on the iris and ciliary muscle, is valuable when we desire accurate ophthalmoscopic examinations in cases dependent upon their use.

10. The conjunctival irritation of hydrobromate of homatropine may be avoided by the use of an absolutely neutral salt.

11. Single instillations of the amounts given, of either of the drugs, are perfectly free from injurious constitutional effect.

I here desire to express my thanks to Dr. William F. Norris for many valuable suggestions, and to Drs. George T. Lewis, C. W. Fox, and G. H. Halberstadt for assistance given.

1507 Locust Street.

---

#### ARTICLE XVII.

STAB WOUND OF THE NECK AND DIVISION OF THE RIGHT RECURRENT LARYNGEAL NERVE, FOLLOWED IMMEDIATELY BY ABSOLUTE APHONIA. By GEORGE M. LEFFERTS, M.D., Clinical Professor of Laryngoscopy and Diseases of the Throat, College of Physicians and Surgeons, New York, etc.

THE great rarity of the following case will, I believe, render the history one of general interest.

On January 5th, 1881, the patient, a strong, healthy German woman, æt. 47, while lying upon her left side, in bed, was approached suddenly by her drunken husband and stabbed in the neck with a long narrow-bladed pair of shears; turning and endeavouring to rise, she received a second blow upon the ramus of the lower jaw, causing a long lacerated wound. Attempting to scream aloud for help, she found herself voiceless. On April 5th I was consulted on account of the aphonia, which had persisted since the injury.

*Examination.*—A long, irregular cicatrix on the border of the lower jaw, right side, a short distance from its angle; a second small one, evidently the result of a punctured wound, at the inner border of the sternocleido-mastoid muscle, at the level of the lower border of the cricoid cartilage on the same side. Patient completely aphonic, speaking only in a whisper, and suffering from slight dyspnoea, especially on exertion. The laryngoscope showed absolute paralysis of all of the muscles of the right vocal cord, it being fixed in the cadaveric position, *e. g.*, midway between the extremes of adduction and abduction, and motionless on attempted phonation or inspiration. The left vocal cord moves freely, and compensates for the defective action of its fellow by passing the median line on adduction, its arytenoid cartilage passing in front of that of the paralyzed cord, and thus fairly approximating the edges of the cords. Laryngeal mucous membrane normal.

*Remarks.*—The condition is of course an incurable one; the only possible error in diagnosis lies in default of a laryngoscopic inspection, in the supposition that the case was one of functional paralysis due to sudden emotion and terror. This theory is at once disproven by the direct examination of the condition of the vocal cords. That a clumsy instrument, roughly used, should have escaped wounding the vital vessels which it must have closely passed in its inward course, and severed alone a nerve the size of the recurrent lying in a protected situation, is hardly comprehensible. The fact, however, stands.

---

#### ARTICLE XVIII.

ON SOME OF THE CONDITIONS AFFECTING THE ORIGIN AND COURSE OF PULMONARY PHTHISIS. By BEVERLEY ROBINSON, M.D., Lecturer upon Clinical Medicine at the Bellevue Hospital Medical College, New York.

THE conditions affecting the origin and course of pulmonary phthisis are so numerous that it would be impossible, in the limits of a journal article, to properly consider even the majority of them. In the following pages I desire to call attention to three of them, to which my individual experience has directed my attention, *viz.* :—

- I. Inflammation of the respiratory organs as they affect the origin and course of pulmonary phthisis.
- II. Syphilis in its relations to the origin and course of pulmonary phthisis.
- III. Contagion and inoculation.