PROPHYLACTIC VACCINATION AGAINST
EPIDEMIC MENINGITIS

A SUPPLEMENTARY NOTE

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In April, 1912, Dr. Abraham Sophian, then of the Research Laboratory of the New York Board of Health, and I conducted a series of experiments to determine, as well as laboratory methods will permit, the value of prophylactic vaccination against epidemic meningitis. Injections of meningococcic vaccine were made on ten medical students who volunteered for the work. The details of this work with the results obtained were reported in *THE JOURNAL*.¹

Eleven months later I repeated these experiments to determine what, if any, immunity could be demonstrated after the lapse of this time. Eight of the original ten vaccinated students were accessible. The technic used in the complement-fixation studies was identical with that formerly reported. The results of this study were reported in *THE JOURNAL*.²

With the effort to make this work as nearly complete as possible, I undertook in May, 1914, twelve and twenty-four months from the second and first examinations, respectively, a repetition of the complement-fixation studies. Table 1 shows the results obtained. It will be seen that all but one of the seven students at hand gave decided fixation in a dilution of 1:20, this, two years after the date of vaccination.

TABLE 1.—COMPLEMENT-FIXATION

Case No.	Dilutions				Control
	10	20	30	50	
1	+++	+++	—	—	—
2	+++	+++	—	—	—
3	+++	+++	—	—	—
4	+++	+++	—	—	—
8	+++	+++	—	—	—
9	+++	+++	—	—	—
10	+++	+++	—	—	—
Pos. con.	+++	+++	+++	+++	—
Neg. con.	—	—	—	—	—

TABLE 2.—COMPLEMENT-FIXATION

Case No.	1 Month	1 Year	2 Years
1	200	150	20
2	200	150	20
3	100	150	20
4	100	100	20
5	30	*	*
6	*	*	*
7	200	150	20
8	250	100	20
9	100	250	10
10	200	250	20

* Student not accessible.

Table 2 is a comparison of the fixation of each student at one month, one year, and two years, respectively, after vaccination. The figures in each column refer to the highest dilution at which fixation was obtained.

While it is recognized that experimental vaccination of healthy individuals in the absence of an epidemic and the detection of immune bodies in their blood is an indirect way of proving its efficacy, and that the method must finally be judged by its clinical application, we feel that we are justified in drawing the following conclusions from these studies:

1. Prophylactic vaccination produces a high degree of immunity in most cases, this immunity being

demonstrable at the end of two years. It seems a justifiable conclusion that most persons prophylactically vaccinated may safely consider themselves immune for at least two years. Exceptions to this will, of course, be found.

2. Some individuals may show an actual increase in immune bodies at the end of one year over those demonstrable soon after vaccination.

3. Fixation occurred with the serum of the positive control who has recovered from meningitis, but this fixation did not reach as high dilutions as did that of some of those vaccinated.² This has previously been found also in some others recovered from the disease.

4. Experimental evidence warrants us in concluding that prophylactic vaccination is a measure of the greatest value in the control of epidemic meningitis.

TRICHOTILLOMANIA

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We are indebted to the French school of dermatology, and particularly to Besnier,¹ Hallopeau,² Henri Fournier³ and Brocq,⁴ for the recognition and classification of the peculiar family of neurodermatoses which is represented by trichotillomania and dermatothlasia.

Trichotillomania, the "*trichomanie*" of Besnier, is an affection which is characterized by an abnormal desire on the part of an otherwise apparently sane individual to extract forcibly one or more of his own hairs.⁵ The impulse is seldom cyclic, but is as sudden as it is uncontrollable, and Raymond's designation of "*tic de l'épilation*" is not an inappropriate one. The scalp, the eye-brows and lashes, and the beard are the parts most frequently attacked.

Dermatothlasia is a somewhat similar morbid state in which the affected individual possesses an ungovernable desire to rub, scratch or irritate the skin on one or several parts of the body.

TRICHOTILLOMANIA

Recently I had an opportunity to study two typical examples of trichotillomania.

CASE 1.—The first case occurred in a married woman of 27, an American by birth and a housekeeper by occupation, referred to me by Dr. Charles W. Gosney of Kansas City. The patient had always been of a nervous temperament, but her family history was negative insofar as nervous or cutaneous ailments were concerned. Two years prior to the time of consultation she first became aware of the fact that she had acquired the habit of frequently jerking hairs out of her eye-brows whenever she was worried or subjected to prolonged periods of excitement. Despite her efforts to combat the practice, the habit grew stronger instead of weaker. She had never suffered from pruritus or other irritation of the supra-orbital regions, and could not account for the propensity to remove the hair from these particular localities. The attacks were confined principally to the inner extremities of the brows, where the hairs protruded forward and were easy to grasp. It did not appear to matter which hand was used in the process of extraction. As the patient described it, she would have a sudden, intense desire to pull out one of the hairs (normal individuals probably experience a somewhat analogous sensation at times regarding one of the stiff vibrissae of the nose), and a second later she would be gazing at the freshly extracted appendage with its partially adherent root sheath.

1. Besnier, E.: *Monatsh. f. prakt. Dermat.*, 1889, ix, 572.2. Hallopeau: *Ann. de dermat. et de syph.*, 1889, Series 2, x, 440; *Bull. Soc. franc. de dermat. et de syph.*, 1891, ii, 157; *Ann. de dermat. et de syph.*, 1894, Series 3, p. 541.3. Fournier, Henri: *Jour. malad. cutan. et syph.*, April, 1898.4. Brocq: *Traité Élémentaire de Dermatologie Pratique*, Paris, 1907, ii, 398; *Jour. des pract.*, March 26, 1898.

5. "La trichotillomanie consiste essentiellement en une impulsion qui pousse les sujets à arracher des poils; ce besoin de pratiquer l'avulsion constitue une véritable manie, et nous l'avons observée sans qu'il y ait de prurit notable" (Brocq).

1. Sophian, Abraham, and Black, J. H.: *Prophylactic Vaccination Against Epidemic Meningitis*, *THE JOURNAL A. M. A.*, Aug. 17, 1912, p. 527.2. Black, J. H.: *Prophylactic*, *THE JOURNAL A. M. A.*, April 26, 1913, p. 1289.