The patient, a middle-aged man, of good family history, who indulged moderately in alcoholic drinks until five years ago, when he abandoned their use, had syphilis nine years ago, but the symptoms disappeared under treatment and he enjoyed robust health until quite recently, when his present ailment commenced. The first symptom which attracted his attention was slowness and hesitation in his speech. His mental processes far outstripped his powers of expression. Aside from this, there were no morbid phenomena and all his bodily functions were well performed until three months ago, when he suddenly became paralyzed in his right arm and leg. Sensation was retained and there was no absolute loss of consciousness, although there were notable mental confusion, pain in the head, and slight feverishness. All these symptoms disappeared within a few hours. Two similar attacks have occurred since the original one, the only symptom during the intervals having been the same slowness of speech, which existed before the first paralytic paroxysm. The writer witnessed the symptoms immediately preceding the last attack as well as the attack itself. Forty-eight hours before the development of paralysis the patient's condition was as follows: The functions were all well performed, the organs were healthy, and the urine was normal. There were no enlarged lymphatic glands and no cicatrices. The pulse, respiration, and temperature were normal. There were no arterial or heart murmurs. The superficial arteries were not rigid. The mind was clear and the patient cheerful. The only morbid phenomena were the following: The left pupil was somewhat dilated, but responded readily to light. There was slight ataxic aphasia, but no amnesic aphasia, no word-blindness or word-deafness. The sensibility of the left side was normal, that of the right side slightly exaggerated. The motor power was everywhere normal. The tendon and cutaneous reflexes were somewhat increased on both sides. The electrical reactions were normal. There was no nystagmus, but slight volitional tremor of the hands. Forty-eight hours after my first examination, the patient, feeling unusually well and buoyant, walked into the room of the resident physician, which was at some distance from the private room occupied by himself. While in the doctor's room he suddenly complained of vertigo and of inability to stand erect. He was carried to his room, when it was found that he was hemiplegic on the right side. I saw him soon after the development of the paralytic symptoms. He then had marked ataxic and amnesic aphasia, besides word-blindness. He wrote a telegram which he supposed to be a coherent message to his mother, but which consisted of the word *come*, repeated, in full or in part, at least twenty times in parallel columns. There was well-marked motor and sensory paralysis of the right side, excepting the face, with right hemiopia. The reflexes on the right side were notably exaggerated. There was flushing of the face, with suffusion of the conjunctivæ and frontal cephalalgia. The pulse was 100 and regular. The temperature was 100·5°, the respirations 24 to the minute. The left pupil was widely dilated. The volitional tremor had disappeared. The mind was confused and there was general restlessness with discomfort. The urine was normal and retention did not exist. There was no dysphagia. Within four hours these symptoms vanished as suddenly as they came, and were replaced by those which existed before the attack. Within the past week no new developments have taken place.

The questions I desire to submit relate to the etiology, to the prophylaxis, and to the curative treatment. The absence of cardiac lesions and the rapid disappearance of the symptoms would seem to exclude embolism. The absence of rigidity of the arteries and of aortic murmurs renders the existence of syphilitic endarteritis or of endarteritis obliterans doubtful. There are no symptoms directly pointing to pachymeningitis hæmorrhagica or to tumor. The presence of persistent mydriasis on the left side, with ataxic aphasia, and of volitional tremor, suggest the possibility of cerebral sclerosis. Might not the sudden paralytic symptoms be referable to local vaso-motor paresis, owing its origin to the irritating effects of the doubtful primary lesion?

DOES PULMONARY CONSUMPTION TEND TO EXTERMINATE THE AMERICAN INDIAN?

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IN an article published in "The New York Medical Journal" for January 1, 1887, entitled "Pulmonary Consumption among the Indians," Dr. Washington Matthews adduces evidence which "goes to show that consumption increases among the Indians under the influences of civilization," and that "where the Indians have been longest under civilizing influences the consumption rate is the highest." That the first proposition is quite in harmony with the operation of the law of adjustment between living bodies and their environment no one will, we think, call into question; but that the second proposition rests on an equally firm foundation neither follows from the truth of the first, nor is substantiated by facts as gleaned from the medical statistics reported by the commissioners of Indian affairs.

Dr. Matthews roughly divides the Indian population into two classes: (*a*) those living on reservations, and (*b*) those not living on reservations, or those at large. The latter constitute the class which has been most fully brought under the influences of civilization, two thirds of whom reside in the States. The former, or the reservation Indians, chiefly reside in the Territories, and have been most recently subdued and brought under civilizing influences. Following this he gives the consumption rate of 1880 among the Indian population in thirteen different States and Territories thus: "Nevada, 45; California, 70; Arizona, 83; Colorado, 107; Nebraska, 150; Montana, 176; Dakota, 200; Oregon, 240; Idaho, 250; Washington, 302; Michigan, 333; Wisconsin, 361; New York, 625." He concludes as follows: "It is seen in the foregoing table that in the States east of the Mississippi—the oldest States, where the Indians have been longest under civilizing influences—the consumption rate is the highest."

These figures reveal a startling condition of things, and, if true, would clearly show that the extermination of the Indian by natural means is only a matter of a comparatively short time, and they at once raise the question, Why should the fate of the Indian in respect to pulmonary consumption be harder than that of the white man? for we have* elsewhere given what we consider satisfactory proof that this disease is on the decrease among the white population in this country, owing to an adjustment of internal to external relations.

Before proceeding any further it is important to con-

* "Study of Pulmonary Consumption in the City of Philadelphia," "Trans. of the College of Physicians," Nov. 3, 1886.

sider the methods which Dr. Matthews employed in getting the above-mentioned results; and this will serve to explain the variations in the calculations which each of us obtains. His "consumption rate is the number of deaths from consumption in a thousand deaths from all known causes." This obviously may become a very unreliable standard for comparison, especially when our estimates are to cover the statistics of a number of years. If the number of deaths from all causes were unvarying, or very nearly so, from year to year, or would necessarily bear a proportionate relation to the number of deaths from consumption, the plan would answer admirably. This not being so, results vary in accordance with the prevalence or absence of other diseases than consumption; hence more reliable results can be obtained when the number of deaths from any given disease is compared with the whole population or class among which it prevails. This latter method is the one which we adopted here.

In looking up the data for this paper we encountered a great many obstacles. In the first place, we found that up to 1882 the reports of the Indian Commissioners gave no statistics in regard to consumption among the Indians, for prior to that time consumption and scrofula were classed together under the heading of tubercular diseases; and at no time do these reports furnish the number of deaths from consumption—only giving the number of those suffering from this disease in each agency. Imperfect as the work therefore is, and brief as the period is over which it extends, we think sufficient information may be gathered to show that consumption pursues the same general course among the Indians as it does among the white race—viz., first contact with the influences of civilization increases its death-rate, and prolonged contact diminishes it.

NAMES OF AGENCIES.	Population.	Proportionate average no. of cases of consumption to population from 1882 to 1886.	Proportionate no. of deaths from all causes to population in 1886.	How and when they were brought under the influences of civilization.
First Group.				
1. Mission, Cal	2,958	1 to 1,494	1 to 73	By treaty with Hidalgo.
2. Mackinac, Mich	4,000	1 to 896	1 to 93	By executive order in 1855.
3. White Earth, Minn	5,885	1 to 840	1 to 49	By treaty in 1855.
4. Nevada, Nev.	3,757	1 to 525	1 to 79	By executive order in 1859.
5. Navajo, New Mex.	23,000	1 to 1,200	1 to 82	By treaty in 1863.
6. Pueblo, New Mex.	7,762	1 to 1,500	1 to 46	Received under old Spanish grant in 1848.
7. New York, N. Y.	4,965	1 to 681	1 to 34	By treaty in 1797.
8. Umatilla, Or.	962	1 to 301	1 to 54	By treaty in 1855.
9. Green Bay, Wis.	3,636	1 to 393	1 to 41	By treaty in 1848.
Second Group.				
10. Colorado River, Ariz.	1,012	1 to 253	1 to 23	By congressional act in 1865.
11. Round Valley, Cal.	662	1 to 120	1 to 53	By congressional acts in 1864 and 1873.
12. Cheyenne River, Dak.	3,288	1 to 125	1 to 20	By treaty in 1868.
13. Pine Ridge, Dak.	7,000 (?)	1 to 100	1 to 30	By treaty in 1868.
14. Fort Hall, Idaho	1,462	1 to 298	1 to 15	By treaty in 1868.
15. Osage, Ind. Ter.	1,582	1 to 258	1 to 20	By congressional act in 1872.
16. Colville, Wash. Ter.	3,568	1 to 298	1 to 46	By executive order in 1872.
17. Shoshone, Wyom.	1,800	1 to 207	1 to 50	By treaty in 1868.
Third Group.				
18. Pima and Maricopa, Ariz.	5,050	1 to 2,500	None.	By congressional act in 1883.
19. Papago, Ariz.	7,300	None.	None.	By executive order in 1882.
20. Sac and Fox, Iowa	380	One case reported.	1 to 48	By purchase deeds, 1870, 1882.

For the sake of clearness and comparison we add the above table, in which are given the population, the proportionate average number of deaths from all causes, and the manner in which the Indians were brought into civilization, in each of twenty Indian agencies. These agencies are divided into three groups: (1) those which existed prior to 1863, (2) those which were established from 1863 to 1880, and (3) those which have been established since 1880. This division is made for the purpose of showing the different degree of effects produced by civilization on the Indian race. This is very natural, for, if civilization has any deteriorating tendency in this respect, it must be granted that a few years are necessary for its development: hence the third group should manifest no or very little deterioration; the second group more; and the first group, if prolonged contact with civilization increases deterioration, should show most of all; while, on the other hand, if there is any tendency of adjustment between the constitution of the Indian and the causes which generate consumption, the first group should be comparatively free, or at least more so than the second group.

From this tabular arrangement it will be perceived that the Indian follows the same law of adjustment concerning consumption as that which is followed by his white neighbor. The Indians of the first group may be divided into two classes—those belonging to the Mission, Navajo, and Pueblo agencies, and those belonging to the rest of the agencies. Those of the first division are socially of a higher type than those of the second division. They bear a strong resemblance to the Mexican Indians, from whom they acquired many arts, and they are principally engaged in civilized pursuits. The Mission Indians are said to be the longest-lived people in the world—one per cent. of them are reported to be centenarians. As a rule, they live now as they have lived during the last three centuries. The Navajos are like the Pueblo and Zuni Indians. They pursue agriculture, spin wool, and weave cotton, and are famous for the fine blankets which they manufacture. On account of the higher state of their civilization, the Indians of this division never underwent that marked transition which those of the second division encountered when confronted by the higher plane of civilization.

The Indians of the second division of the first group more definitely represent that type of the savage with which we are familiar at the present day, and are the descendants of those with whom our Indian wars were carried on in earlier times, and they are analogous in nature to the Indians of the second group. An examination of the table shows quite a uniformity in the death-rate of nearly all these agencies. Thus, among the New York Indians, which have been longest under the jurisdiction of the Government, the consumption rate is exceedingly low (1 to 681). So is the consumption rate of the Mackinac (Michigan), White Earth (Minnesota), and Nevada (Nevada) Indians, while that of the Umatilla and Green Bay Indians is higher, but still makes a remarkably favorable showing. The conclusion, then, which can be drawn from these statistics, unless they are entirely unreliable, is that the influence of civilization on the American Indian in the long run is not detrimental to his well-being, so far as pulmonary consumption is concerned.

The agencies of the second group represent those Indians who have been brought under civilizing influences in more recent times—from 1863 to 1880—and, in contradistinction to the first group, the reports show that their consumption rate is high.

Group third represents those Indians who have been subjugated most recently. They are still leading a very primitive life, in many respects they bear a strong resemblance to the second division of the first group of Indians, and their consumption rate, as shown by the table, is almost *nil*. The Pimas are agriculturists and vegetarians, and live in adobe houses. The Papagos are Catholics, industrious and friendly, and their form of government is much like that of the Mexicans and Pueblos. The Sac and Fox tribe of Iowa are said to be physically as fine a class of men and women as it is possible to find. They live in the rude huts of their ancestors, cook their food on the ground floor, and leave the smoke to escape through the roof, thus securing good ventilation.

While it is much to be regretted that the reports of the Indian Commissioners contain no medical statistics concerning the Cherokee, Choctaw, Chickasaw, Creek, and Seminole Indians, who probably represent the highest grade of civilization yet attained among this race, these statistics show that the Indian in his primitive condition is almost free from pulmonary consumption; that his first contact with civilization vastly increases his liability to the disease, and that a prolonged contact diminishes this liability. And we see, therefore, that the Indian follows the same law of adaptation as that which is followed by the white and colored races, and does not occupy that exceptional position in this respect which is ascribed to him by Dr. Matthews.

Probably one of the chief causes of disintegration among the Indians when first coming in contact with civilization consists in an entire reversal of their previous habits and customs. The life of physical open-air activity, which invigorates the Indian's respiratory organs as well as his whole body, is now exchanged for a reservation life, where his nomadic instincts are curbed and his wants are fully satisfied, and in consequence he sinks into a state of lethargy and idleness from which he soon merges into pulmonary disease. After having endured the first shock of the conflict, a reaction begins to show itself. He gradually becomes accustomed to his new relation, assumes an industrious and peaceful life, and so elevates himself out of his physical and moral degradation.

It is not true, as is often stated, that the Indian only acquires the vices and not the virtues of the white man. It is no doubt true that he acquires his vices first, and consequently sinks early into disease and crime; but his history shows, too, that after he is adjusted to his new condition he also becomes capable of leading a highly moral and virtuous life—a life which compares very favorably with that led by his white neighbor.

Another important factor which tends to bring the Indian into harmony with his surroundings is a blood mixture with the white race. Mixture with white blood, which is already adapted to a higher plane of civilization, will certainly improve the Indian, and serve to increase his resistance to disease; and there is sufficient proof to show that this process of conservation, or blood adjustment, is going on at a rapid rate among those Indians who have been longest in contact with the white race, like those of New York and Michigan, who are largely composed of mixed bloods. There can be no doubt that this influence contributes largely to the greater immunity of these Indians from pulmonary consumption. This observation is full of meaning when it is linked with the opinion of one who has had a wide experience among the Indians, that "the half-bloods resist disease and death from pulmonary troubles better than full-bloods."*

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WHAT CASES OF NASAL CATARRH REQUIRE SURGICAL TREATMENT?†

By CLARENCE C. RICE, M. D.

This subject has received as much attention from this association as any other, if not more, during the past three years, and I am aware that newer, fresher topics would be more entertaining. That there is no unanimity of opinion here in regard to the frequency with which surgical measures are required in the treatment of catarrhal inflammations of the nose I think we all know. The discussion on this subject by the members of this association one year ago will show that there were almost as many opinions as speakers. Dr. J. Solis-Cohen, who has had large experience in the treatment of nasal disease, concludes that "in keeping the parts clean and in caring carefully for the patient's general health" he is doing the maximum for the cure of nasal inflammations. Dr. Daly, of Pittsburgh, is quoted as saying that "when we become more throat surgeons and less throat doctors, we shall get better results in the treatment of our cases." A number of the gentlemen last year expressed it as their opinion that there had been, and there still was, a tendency to do too much cutting and burning and boring and snaring, while others contended that in these very methods we had the most efficient therapeutical means in the treatment of catarrhal diseases of the upper air-passages. To me this diversity of opinion is not at all discouraging in endeavoring to arrive at the correct principles which should regulate the treatment of nasal catarrh. I believe that the members of this association are more agreed in their actual methods of treatment than the various opinions expressed by them would indicate.

In the treatment of nasal disease there is a middle ground between the local application of mild remedies on the one hand and radical surgical measures on the other, where we can safely stand. No surgical method is to be shunned completely because it has been employed too frequently, or because it has been at times improperly followed. I have seen disastrous results from the use of the galvano-cautery, and yet I am fully in accord with a statement made at our

* Captain Pratt's report of the Indian school at Carlisle, Pa. See "Report of Indian Commissioner for 1886," p. 22.

† Read before the American Laryngological Association at its eighth