

THE CANADA LANCET.

A MONTHLY JOURNAL OF

MEDICAL AND SURGICAL SCIENCE,
CRITICISM AND NEWS.

VOL. XVII. TORONTO, NOV., 1884. No. 3.

Original Communications.

THE EFFECTS OF TOBACCO.*

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Mr. President and Gentlemen.—At our last meeting the President referred to a case of faint cardiac murmur in a very healthy man who smoked a good deal, and questioned as to the possible connection between the tobacco and the murmur. This suggested to me "The Effects of Tobacco" as a subject for this evening's consideration. In regard to one field of observation, I have a very decided view, and am anxious to get the benefit of your experience in a more general field. The universality of puffing and chewing the fragrant weed, and the potency of tobacco as a poison, make the question of the effect of its habitual or remedial use an important one. Tobacco belongs to the family solanaceæ, which embraces such members as hyosciamus, belladonna, stramonium, and curiously enough, the potato. Its important active principles are a colorless liquid alkaloid, called nicotine, a poison "which almost equals hydrocyanic acid in activity" and a camphoraceous volatile oil, nicotianin. By burning tobacco, an empyreumatic oil is produced from the decomposition of some of its constituents, which as found in the pipe of the smoker, is an active poison, and appears to be (Christison says) nicotine attached to a true volatile oil. The proportion of nicotine varies in different sorts of tobacco, and the quantity usually present is by various chemists estimated from 2% to one part in ten thousand. Two or three drops of nicotine or ʒss. of tobacco may cause death. The death of two brothers is reported from the continuous smoking of 17-18 pipes. Pereira gives a case in which twelve drops of an infusion of tobacco given as an enema caused death.

*Read before the New Brunswick Medical Society.

Von Boeck on vegetable poisons, says, "It is from smoking tobacco that nicotine poisoning chiefly arises, the smoke itself containing the nicotine. A great deal of it accumulates on the lower part of the pipes, and the remains of cigars are much more impregnated with it than the parts fresh smoked. Large poisonous doses of tobacco are said to produce syncope, small pulse and labored respiration. In most cases convulsions supervene. The pupils are at first dilated, then contracted. There is prolonged collapse and finally death."

Erb, of Heidelberg, says: Various authors adduce excessive tobacco smoking among the causes of tabes dorsalis. I would here say, in anticipation, if we can prove, as we think possible, that tobacco smoking often produces inflammation and atrophy of the optic nerve, is it not more than probable that it can and does produce myelitis, followed by atrophy of the cord, the admitted pathology of tabes dorsalis. Beau describes eight cases of angina pectoris, in which the attacks ceased when smoking was stopped, and returned when the patients began to smoke. Headland places tobacco under the class neurotics, order inebriants. The observations of Claude Bernard that nicotine at first produces contraction of the arteries, and later on the vessels become distended, agree with the results of the physiological researches of Uspensky, who concludes that nicotine first stimulates then paralyzes the vaso-motor centres.

From personal experience and the literature at my command, I know of no more constant detrimental effect of the abuse of tobacco than impairment of sight, ranging from slight defect to total blindness. The abuse of tobacco is so frequently associated with drinking to excess, that it is questioned by some whether tobacco alone ever produces impaired sight, or whether the tobacco or alcohol is the chief factor. My own opinion is, that tobacco alone is quite able to produce imperfect sight. Dr. Webster, of New York, in an able paper reporting twenty cases of amblyopia from the abuse of alcohol and tobacco, remarks, "That the abuse of alcohol alone, or of alcohol and tobacco combined, may produce impairment of vision, no physician acquainted with the subject will, I think, venture to deny. Some, however, doubt that tobacco alone ever causes impairment