infection can be found. Personally I wish that I had opened the cranial cavity. I might have found a frontal abscess, and if I had not found that but had found only a generalized meningitis the opening would have served for drainage. It is hard to believe that surgery will always hold its hands contentedly helpless even before generalized meningitis.

FATAL RESULT FROM INTRANASAL OPERATION.*

BY GEORGE L. TOBEY, JR., M.D., BOSTON.

CASE: W. R. Male, fifty-eight years.

Children's diseases. Denies venereal disease.

During the last fifteen years he has had constant mucopurulent discharge from both anterior and posterior nares, and at intervals of from four to six months nasal polypi have been removed to relieve bilateral obstruction to breathing. Complete loss of sensation of smell for five years. During the last year there has been complete nasal obstruction, treatment having been neglected. When first seen his chief complaint was constant headache with sensation of compression at the base and forehead, loss of appetite and inability to sleep, with consequent neurasthenia.

Physical examination showed a man of medium height, poorly nourished and anemic. Chest negative. Both sides of nose filled with polypi and pus. The polypi presenting at the anterior nares. Nasopharynx filled with polypi protruding through the posterior nares. Naso-pharynx and pharynx bathed in muco pus.

On removing the polypi with snare it was found that there was a marked deviation of the cartilaginous septum, the septum being in contact with the left lower turbinate. Breathing space was obtained, on the right side, by removing a mass of polypoid tissue with snare and punch. Bleeding was insignificant. Four days later the middle turbinate on the right side was removed, the ethmoid cells opened with conchotome and curetted to os planum with Hajek's instruments.

Polypi could be seen protruding from the sphenoidal foramen. Anterior wall of sphenoid removed with punch. Cavity found to be filled with granulations and inspissated pus. Floor and inner wall lightly curetted. Few strips of iodoform gauze to sphenoid. Twenty-four hours later the packing was removed, and a few more polypi removed. Right antrum tapped and large amount of mucopurulent secretion washed out. One week later there were a few small polypi in the posterior ethmoid cells, which were removed with curette. The sphenoid was clean. It being impossible to reach the middle turbinate and sphenoid on the left side on account of the deflected septum, the cartilaginous and a portion of the bony septum were resected by the submucous method. Although the nose, on the side where the incision was made, was continually bathed in pus, there was complete healing in three to four days. Two weeks later the left middle turbinate was removed. The ethmoidal cells were found to be filled with granulations and pus. Cells curetted to os planum. Sphenoid opened as on the other side, and semi-solid cast of inspissated pus removed. Few strips of iodoform gauze to sphenoid. Bleeding insignificant. Six weeks later the right side of nose was clean. Practically no secretion in the antrum; the sphenoidal sinus was dry.

On the left side the same condition prevailed, with one exception. A little posterior to the nasofrontal

duct and on the roof was a small mass of polypoid tissue bathed in pus. It was thought inadvisable to curette these, consequently a Grunwald punch was used to remove a portion of the mass. Twenty-four hours later he developed symptoms of a septic meningitis and four days later died from that disease. No autopsy.

Medical Progress.

REPORT ON DERMATOLOGY.

BY JOHN T. BOWEN, M.D., BOSTON,
AND
HARVEY P. TOWLE, M.D., BOSTON.

THE INFLUENCE OF LIGHT ON THE SKIN.

DURING the last ten years much interest has been taken in this subject, stimulated, without doubt, by the introduction of x-ray and Pinsen therapeutics. As long ago as July, 1897, a paper on this subject was read by R. L. Bowles at the May meeting of the Dermatological Association of Great Britain and Ireland.

This paper offered much interest on account of the personal experiments of the writer on sunlight and snow-light in the Alps. By his experiments he showed that heat in itself is not the cause of sunburn, and that there is strong evidence for believing that it is caused by the action of the violet or ultra-violet rays of light. It was also shown that although these ultra-violet rays are very strong at high altitudes, altitude alone does not explain sunburn, as one may be unburned on rocks at 10,000 feet and yet be affected on descending to a glacier three or four thousand feet lower down. He considers it has been shown that rays from the electric light produce much the same results as sun's rays reflected from the snow, and that bronzing of the skin and browning of the wooden chalets are probably produced by rays reflected from the snow; also that freckles stop the penetration of these chemical rays through the skin; also that various pigments, chiefly those containing red and yellow, stop or alter reflected rays and prevent the pathological changes.

Immediately after the publication of Professor Röntgen's discovery, Dr. Bowles claimed for the x-rays as then produced an affiliation to those of light, and predicted that they would be found to affect the tissues in a way similar to the violet rays of light. This was found to be the case, as is shown by the numerous cases of x-ray burns, and he suggested that a form of energy which can produce such serious results on the skin may have a serious toxic effect. He declared that he would not be disposed, until more is known, to risk the effects of so powerful a form of energy on the cells of his own brain. Bowles is much impressed with the fact that reflected light burns much more rapidly than direct.¹

Ehrmann's experiments on the action of light in hydroa estivalis are interesting.² This affection, first described by Bazin under the name of hydroa vacciniforme, begins, as is well known,

* Read at a meeting of the New England Otological and Laryngological Society, March 16, 1906.

¹ Brit. Jour. Derm., July, 1897.

² Arch. für Derm. und Syph., 1905.