

occurs in pneumothorax is not well borne. But the drawing of conclusions as to why so large a percentage of the deaths at this place have been due to this cause must be deferred until more cases and a larger series can be reviewed.

I desire to thank Dr. P. M. Carrington, at whose instigation this report was written, for placing at my disposal the records of the sanatorium.

HEADACHE FROM NON-SUPPURATIVE INFLAMMATION OF THE ACCESSORY SINUSES OF THE NOSE.

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Attention has recently been called to headache from disturbance of air pressure in the accessory sinuses of the nose. This disturbance, not so rare as might be supposed, produces all the symptoms of an empyema, except the discharge. The cause of this condition is stated by one author as being "from air pressure in the sinus." It seems to me, however, to be produced by a diminution of air pressure in the sinus. This diminution in pressure is caused by obstruction to the ingress of air to the particular sinus by closure of its natural orifice. For instance, the middle turbinal may be swollen from inflammation; the swollen body obstructs the sinus so that the cavity is shut off from the nasal chambers. The imprisoned air loses its oxygen from absorption by the blood vessels in the mucous membrane of the cavity. As a result of this absorption, the pressure on the mucous membrane is lessened by rarefaction of the air contained in the cavity. This causes a swelling of the mucous membrane in the sinus. If the opening becomes patent, the condition subsides, but in cases where the opening remains closed for some time, the cavity is encroached on, 1, by swelling the mucous membrane; 2, by the pouring out into the cavity of lymph, and 3, by the engorgement of the mucous membrane itself by lymph.

The same condition exists here as in non-suppurative inflammation of the ear, caused by occlusion of the eustachian tube. The symptoms vary according to the time the sinus remains closed. The case may present intermittent symptoms from the occasional opening of the sinus by the contraction of the tissues of the middle turbinate. The usual objective signs of empyema are absent. There is no mucopurulent discharge and transillumination gives a negative result.

CASE 1.—Mrs. F. J. S. This patient has a nose that appears normal in condition save that there is a hypertrophy of the anterior end of the middle turbinate. She complains of almost constant intense pain between the eyes. It has lasted now for two weeks. She had a similar attack one year ago, which followed "a cold in the head," and was at that time treated by her oculist, who dropped medicine in her eyes and gave her prisms for the relief of exophoria. She subsequently was under the care of an osteopath who treated her till the symptoms subsided. The former attack lasted about three months, until the weather became warmer. At present she complains of photophobia and pain on pressure over the inner angle of the eye. There is no discharge in the nostril, but the middle turbinate is large, red, swollen and slightly myxomatous. Applications of cocaine and adrenalin contracted the tissues of the middle turbinate so that a small pledget of cotton could be pressed under it. The turbinate was painted with glycerin and iodine, and the patient experienced relief in an hour after the application. Five

treatments, given during a week, resulted in a complete cessation of symptoms. There has been no recurrence of the symptoms since, six months after treatment.

CASE 2.—Mrs. A. W. K. had antrum disease 3 years ago and was treated by irrigation through the natural orifice daily for six months, when a cure was effected. There has been no discharge since that time. The present trouble dates from about two months ago. The patient is very nervous, has flushing of the face which lasts about 18 to 24 hours and which is followed by headache which settles over the right antrum. The headaches are similar to those she had while she had antrum disease. Transillumination test shows both sides very clear and of equal brilliancy. The nose is high and narrow. The right middle turbinate hangs well out into the nostril and extends down to the upper edge of the lower one. There is some hypertrophy, most marked on the outer side of the body, toward the hiatus semilunaris. The tissue is red and swollen. It is impossible to pass a probe with a small pledget of cotton under the body without using force. After shrinking the membrane with cocaine and adrenalin, the opening of the cavity of the antrum was painted with an astringent pigment and the patient was not seen for two days to note the effect. On the third day she was seen again and said that the pain had disappeared in an hour or two after the first treatment, and that relief lasted 24 hours. Subsequent treatments corroborated these facts. No permanent effect being obtained, at the end of two weeks the anterior end of the middle turbinate was cut away and was followed by absolute and prompt relief.

These cases represent a class of headaches heretofore overlooked, and in one of them the advice of a competent rhinologist was sought, who said it was only imaginary or due to some little cold. It is thus attempted to show that we have non-suppurative inflammations of the accessory sinuses of the nose, as well as in other portions of the body, and that it is possible to relieve such cases by the treatment of the tissues which are the cause of the trouble. Attention to the middle turbinate body is becoming more imperative, as it is the key to the most important part of the nostril.

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HOSPITAL EXPERIENCE NECESSARY FOR LICENSURE—A SUGGESTION IN MEDICAL EDUCATION.

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Much has been written on medical education, and the better medical schools are trying to raise the standard by requiring more in the way of general education before allowing one to matriculate, and a more thorough knowledge of medicine, both theoretical and practical, before granting a diploma. The civil authorities in the different states are more or less active in the same line, one state after another in the past few years having made it illegal for a person to practice medicine before he has, ostensibly, shown his fitness for the work, by passing the examination of the licensing board.

These facts show, in brief, that: (1) The standard of educational equipment of the average physician is so low that those best fitted to judge are far from satisfied with it, and (2) these are anxious to improve the present state of affairs. We must admit, however, that the present methods of raising the standard are inadequate, and that the prospects for improvement are not so bright as we would have them.

The requirement of a collegiate degree before admission to a medical school is greatly to be desired, but it will be many years before this will be done by any but a very few of the best schools. State board examinations, though very unsatisfactory and inadequate, are undoubtedly of great benefit, and are a step in the right direction, but are only a short step on what will prove to be a long journey if we follow the same road.