

ASTHMA FOLLOWING OPERATIVE MEASURES IN ETHMOIDITIS.*

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The relationship existing between internasal abnormalities and asthma has been so comprehensively dealt with that the recording of new data of value springing from my own observation is not intended to be the subject of this short paper, the object being, rather, to emphasize the fact that asthma can and does result from operations upon the ethmoidal sinuses.

Bearing in mind the hyperesthetic theory of nasal asthma, one is surprised that more cases are not recorded and that this complication does not follow more frequently than seems to be the general experience. Many cases are recorded of the cure of asthma by surgical attention to hyperesthetic areas in the nasal chambers, but a fairly complete investigation of the literature published in the English language covering the period of the last ten years, during which time operations upon the ethmoidal sinuses have been more popular, failed to bring to light much proof that the converse is true, i. e., that asthma may be induced by the artificial production of hyperesthetic areas in the nose, and furnished no evidence at all that it could be produced by surgical operations upon the ethmoids. It is therefore presumed that this cause and effect do not often go together and that my own experience of having seen three cases in almost as many years is unusual and must be my excuse for using a few minutes of the valuable time of the Section.

It is not contended that in the three cases to be reported, the asthmatic attacks resulted from the ethmoidal operations alone, but it is believed that in all three cases the attacks were precipitated by the operations. In one, no primary cause was discovered. In another bronchitis was present and may have had an influence toward producing the attack, while in the third a thorough examination was not possible. None were previously afflicted with asthma, and in all the attacks came on in from two to three weeks subsequent to the operation. In all three the attacks were unusually resistant to drug, dietetic and other remedies, and in one case to climatic treatment as well. In what may be termed idiopathic asthma, drugs and other well known therapeutic measures do have for a time at least some effect.

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The first case, a man, came under my observation and treatment several years ago, in the clinic of Drs. Knight and Wright, at the old Manhattan Hospital, but as I was then more busily engaged with general practice than with this special department of medicine, and not expecting that the case would develop into one of particular interest, no notes were made that enable me to locate the patient or his clinical history. This case responded to no drugs, the opiates excepted, and when codeine no longer gave him much freedom from the paroxysms his attendance at the clinic ceased before other measures could be instituted. This case was gone over thoroughly in efforts to find a cause for his asthma rather than to exclude all other causes than the operation, inasmuch as I did not then regard the ethmoidal operation as being so closely related to the trouble. No other cause was found.

The second case being a private one, the history is fortunately more complete and is as follows:

Mrs. M., married, æt. 30, came to me in June, 1907, stating that she had been troubled with a dry cough off and on for two months, and sneezing a great deal for a year. During no season did she suffer more from the sneezing than at any other. She used about six handkerchiefs daily, the discharge being at times thick, at other times thin; had some difficulty breathing through her nose, was susceptible to head colds, and was not as energetic as formerly. There was no loss of weight, her appetite was good and bowels regular. Had been using different cough syrups, but her digestion was not disturbed. On physical examination, slight râles were heard throughout the chest. An ecchondrosis of the nasal septum, and a discharge believed to be coming from the ethmoids, were found. The uvula was elongated. Under creosote the cough gradually became less, and later the ecchondrosis and a piece of the middle turbinate were removed, and a week or so later the ethmoids were curetted and some small polypi uncovered and removed. The patient made the usual progress for about two weeks, when her visits ceased. About three weeks later I was consulted again and was told that, her cough getting so much worse, she had consulted her physician, who made a diagnosis of capillary bronchitis, that she coughed so much at night even when taking codeine and heroin that neither she nor other members of the family were able to sleep. She was compelled to sit up all night. Her cough during the day was also very severe. An examination and the history led to a diagnosis of asthma, and Dr. A. A. Smith was called in consultation. No cause other than the nasal condition was found to account for

her trouble. No relief being obtained by any treatment instituted apart from increasing doses of opiates and cocaine applied locally, and these only giving partial relief, it was decided to try the influence of climate. She went to different parts of Canada, including Muskoka, which is supposed to be an antiasthmatic region, but getting no appreciable relief she came to the Adirondacks, where she was unable to remain, owing to the still greater severity of her trouble. She arrived in New York very much discouraged and refused to seek further relief by climate. For weeks oxygen had to be resorted to for relief, at night, especially, but recently, while she coughs persistently, the spasms are not so violent. Incidentally, during her travels seeking for relief, different rhinologists were consulted, but no interference of any kind was deemed necessary, showing that the condition was not due to spicules of bone, rough surfaces or any of the usual conditions supposed to produce nasal asthma. Apart from a sensation of the fullness that often follows an operation of this kind, no subjective nasal symptoms were present. This patient's temperament was not neurotic although some shock probably accompanied the operation. Moreover, the attack did not come on for several weeks after the operation and probably resulted when the protective scales fell off, thus leaving the delicate nerve terminals exposed. In this case, on account of the bronchitis and nasal occlusion, it may be said that asthma would have made its appearance anyway. This I believe to be true, but the fact that asthma made its appearance after the bronchitis was relieved and the nasal obstructions removed would point to the exposure of the ethmoids as being the immediate cause.

The third case, E. M., aged 24 years, came to the Manhattan Hospital on April 18th, 1907, and left May 14th, 1907. When admitted, he suffered from undoubted frontal and ethmoidal disease. He left while still under treatment and while gradually, if slowly, improving. In September, 1908, he came to the clinic of Dr. Harmon Smith, suffering from asthma which he said succeeded an operation performed at another hospital during the latter part of May, 1908. Examination showed that an operation had been performed on the ethmoidal sinuses.

The asthma responded to no treatment that was administered between the time of his first attack, a few weeks succeeding the operation, and the time when he was seen in September at Dr. Smith's clinic, which latter he attended but once. These cases are interesting inasmuch as they would seem to show that asthma may be artificially induced by producing an abnormal condition in the

nose, contrary to the apparent belief of eminent authorities on internal medicine, such as Flint, Loomis and Fothergill, who do not even mention pathological conditions in the nasal chambers as being productive of asthma. It also seems to refute the contention of others, rhinologists, who claim that nasal obstruction is necessary to the production of asthma of nasal origin. Bosworth states that a large majority if not all of his recorded cases of asthma were due to nasal obstruction. Incidentally it may be mentioned that in twenty-five successive cases of ethmoiditis, quoted by Rice, no asthma was present, and in one hundred and fifty cases of asthma recorded by Bosworth, ethmoiditis was not present except when accompanied by polypi. Rice further states that in ethmoiditis the mucous membranes are less sensitive than normal, except where polypi are present, thus rendering the subject perhaps less susceptible to asthma.

On the other hand these cases tend to bolster up the theory that nasal asthma is due to hyperesthesia of the fifth nerve, although they do not strengthen the contention of Frances, who claims that all asthma may be relieved by cauterizing the septal mucous membrane even where polypi are present and left untouched; nor the belief of Fink, who cures his cases by operation upon the anterior end of the inferior turbinate.

In conclusion, while it is not expected or desired that fewer ethmoid operations will be performed, it being presupposed that none are now being done that should not be done in the judgment of the operator, it might be suggested that, in view of the prolonged discomfort, as manifested by pain, sensation of pressure, fullness and asthma, that sometimes follows these operations, an antiseptic, perhaps slightly anesthetic powder or emulsion, might be applied to the newly exposed sensitive surfaces until such time as they adapt themselves by anatomical change to the requirements of their new functions.

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