

Dr. Butler reported five cases of hyperæsthesia of the nasal passages, with results of treatment. The treatment was chiefly the application of the electric cautery. In some cases there was obstruction of the nasal chambers, while in others they were quite free. In some cases the symptoms occurred only during the hay-fever season, with and without asthmatic seizures. In others, the trouble existed during the whole year, but was aggravated during the hay fever period.

*Case 1.* J.B., age, thirty-eight years; occupation, veterinary surgeon. Family history, good; no history of asthma in the family; had excellent health up to 1880, when he had some symptoms of nasal catarrh. He had had the diseases incident to childhood, as measles, scarlet fever, whooping cough, but there were no apparent ill effects resultant. I mention these points in connection with the family history, as most authors attach great importance to them in developing the neurotic habit, so commonly found in persons suffering from hyperæsthetic rhinitis. In 1881, asthmatic attacks came on, while living at Grand Rapids. He was obliged to leave Grand Rapids, and removed to Ohio; was comparatively free from asthma for one year, but subsequently it returned, and during the hay-fever season it was very violent. I may say that the State of Ohio is notorious for hay-fever. The day he left Ohio to come to London, he was suffering from an asthmatic attack, but when he reached London his breathing was perfectly free; but he was sneezing freely. There was tingling in the nose, and profuse lachrymation, palpebral pruritus, a feeling of depression over the frontal sinuses, and itching over the roof of the mouth.

Examination of nasal passages. On *right side* the anterior end of the inferior turbinate hypertrophied, so as to touch the septum, and extremely irritable. *Left side*: Middle turbinate enlarged, and in contact with septum. Posterior end of inferior turbinate so hypertrophied that it pressed firmly against the septum, and nearly touched the floor of the mouth. Sajou's area, on both sides, extremely sensitive to the probe in spots.

In attempting to manipulate the growth at the posterior end of the inferior turbinate with a probe, I brought on tightness of breathing. I could repeat this at will. I cauterized the hyperæsthetic spots in the anterior part of the nose, and com-

pletely relieved the lachrymation, sneezing, etc. In a few days I attempted to snare the posterior hypertrophy, but did not succeed. I then buried the cautery point in it, cauterizing it pretty freely. This was in the evening. Towards morning a furious attack of asthma came on. The application of cocaine, full doses of iodide of potash (20-30 grs.) and hypodermics of morphia and atropia, had very little effect on it. The attack lasted for three days. In about a week, or ten days, I applied the cautery again, and repeated it at intervals of a week or so until the growth was removed. He was under treatment for three months, and never had asthma while he was with me. He returned to Ohio in April, remained there three or four weeks; had no asthma. He then removed to Minneapolis; went through the hay-fever period without a symptom. About the following Christmas, while in Wisconsin, he had some tightness of breathing, but it soon passed off. He was free then until last fall, during the hay-fever season, when he had considerable trouble; but it passed off, and he has been in pretty good condition since, so that he was able to attend to a large practice. As palliative treatment, I found that the application of two per cent. solution of cocaine to the nasal passages, followed by a two per cent. solution of menthal, gave best results. When his asthmatic attacks came on, grindelia gave good results, but finally pot. iodide with hypodermics of morphia did him most good. Now it is only fair to state that hay-fever, or hay-asthma, is nothing like so prevalent in Minnesota as in Ohio; so it is difficult to say how much of the benefit received in this case is due to the change of climate, and how much to the treatment. Whether the results will be permanent, time alone can decide.

*Case 2.* Mr. D., grocer: age, about fifty; has had hay-fever, with slight tightness of breath, for twenty years. He is frequently obliged to go on the lakes during the hay-fever season. At other seasons of the year he gets on very well, except that he cannot handle seeds. Nothing special in the family or personal history.

Examination: Nasal passages perfectly free and roomy; no evidence of any hypertrophic changes, except three knot-like enlargements on the right side of the septum (cartilaginous part), which were very sensitive to the probe. Several very sensitive spots were found at the front, well up towards the