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NASAL OBSTRUCTION AS A FACTOR OF TINNITUS AURIUM.

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There is probably no symptom so rebellious to treatment, or so discouraging to patients, as Tinnitus Aurium. It is more apparent in middle life and old age, but manifests itself in youth as well. An atmosphere of mystery surrounds its cause, at times calling forth many and various forms of medication. The complications of nasal obstruction, one of the many lesions, will occupy our attention in this brief paper, and in discussing the subject, the endeavor will be made to adhere closely to facts, and to cite only well-known authorities in support of the contention advanced. The variety and character of noises interest us but little, except for the belief that the nature and character of the tinnitus serve to

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localize the lesion. We do know that these noises have pursued their victims with the fierceness of a bloodhound, and that the wards of asylums and the graves of suicides bear testimony to their incessant and relentless torture. It is not intended to disregard the many remedies which have been so successfully applied, but to enter an earnest plea for a more thorough inspection of the upper air-chambers.

A brief glance at the vascular supply of the internal and middle ear, will reveal the rich and free anastomosis that takes place between it and the tissues of the nose and throat. Zucherland, in writing on this subject, points out the close connection between the cavernous sinuses and the turbinal bodies, and his statement concerning this intimate relation is quoted by Dench with approval. A similar, and even greater affinity, is noted in the lymphatics. The nervous supply of these parts again very forcibly demonstrates their close connection by rich and free anastomosis, which gives rise to many reflex disturbances. (Vide Dench, "Diseases of the Ear," pp. 31 and 32.)

French, of Brooklyn, in his admirable

treatise on "Lymphoid Tissues in the Vault," cites instances of headache, chorea, convulsions, asthma, and epistaxis, dependant upon nasal stenosis, which seem easy of explanation upon considering the foregoing arrangements of the structures and tissues of the middle ear. This arrangement shows how deafness and tinnitus are occasioned by their proximity.

Lennox Browne, in his recent work on throat and nose, gives us the following figures: Out of 4936 persons afflicted with nose and throat affections, ear complications occurred in 1890. Dr. Buck, in his "Treatise on the Ear," goes still further in the closing sentence of the chapter on the treatment of diseases of the middle ear. He states: "It is an important co-operating faction, and permanent relief can scarcely be obtained in cases for any length of time, as long as the nasal obstruction is allowed to remain." Authorities acknowledge that most patients with diseases of the middle ear have been the victims of repeated colds, and that these rhinal and pharyngeal inflammations diminish the calibre of the eustachian tubes, exhaust the air in the tympanic cavity, and unless corrected, cause lesions of the labyrinth, giving rise to tinnitus and even deafness itself.

The following cases, occurring within the practice of the writer, are typical demonstrations of the permanent relief afforded by operative measures upon the upper air tract:

Laura F.; age, sixteen; tall, pale; mother in good health; father died of phthisis. Patient has been complaining of ringing in the left ear for five years; at times so severe that the mother feared mental trouble. The condition was much worse in damp weather. She was assured that the girl would outgrow it.

The writer first saw the patient while she was suffering from a severe attack of follicular pharyngitis. The mother casually mentioned the co-existence of the tinnitus. Examination of the nares disclosed a ridge of septal tissue, filling up the right side, and burying itself in the soft mucous membrane of the turbinal opposite. The offending tissue was removed, slight hemorrhage followed the operation, and within ten days the patient experienced a remarkable sense of relief. Five months after the operation, there was no return of the tinnitus, and a general improvement in the patient's condition was apparent.

In a paper read at the Academy of Medicine four years ago, the writer narrated the case of a boy, who for eleven years had a converging squint, that was corrected by an operation upon the nasal septum. It is needless to add that many lesions, such as chorea, facial neuralgia, epilepsy and tinnitus, have been greatly aggravated, if not directly caused, by irregularities of the cartilaginous and bony septum.

Joseph M., aged twenty; poorly nourished; never had been in good health; gave a history of ringing in both ears and of repeated colds in the head; had an attack of diphtheria eight years ago. Inspection of the fauces showed two large, fibroid tonsils, almost approximating the median line. After removing the tonsils, a large mass of lymphoid tissue was found filling up the rhinal pharynx, and pressing upon both eustachian tubes. Three sittings were required to remove the mass, and rapid improvement followed. A letter received six weeks ago from the young man, one year after the operation, states that there has been no return of the tinnitus.

Dr. Quaiffe describes, with great detail, the relief afforded in cases of tinnitus and impaired hearing, after operations for the removal of hyperthropied tonsils and adenoids. Meyer, of Copenhagen, says that in 102 cases of adenoids, 72 suffered from diseases of the ear. Swinburne goes further, by telling us that "in 42 cases of lymphoid hypertrophy of the vault, 27 had complications of the middle ear. This percentage included all ages." Lennox Browne maintains that "deafness, facial and thoracic deformity, as well as faulty articulation, may, in the meanwhile, become irremediably established."

Bernard L., aged fifty-two, married, printer, uses stimulants and tobacco ; has had roaring noises in both ears since 1865 ; no specific history. The patient has consulted physicians in the last ten years, but, according to his story, medication alone was directed to the ears. For the past three years the patient has been so depressed and absent-minded that he could not attend to his business. Examination of the nostrils showed almost a complete stenosis of both sides. The mucous membrane was hypertrophied from the vestibule to the posterior nares. The noises suddenly ceased upon the introduction of pledgets of cotton, saturated with a ten per cent. solution of cocaine. The hypertrophies were removed with the cold snare, and since the last operation the patient has experienced entire relief. Bosworth, in his recent edition of "The Nose and Throat," remarks : "In a certain proportion of cases of hypertrophic rhinitis, *tinnitus* is met with usually in middle ear diseases, although in a small proportion of cases, there is apparently, no organic lesion. That this distressing symptom may be dependent on nasal disease, is shown by the fact that in a flattering proportion of cases it disappears under treatment." Lennox Browne, again alluding to this symptom, remarks that "hypertrophic catarrh is often associated with *tinnitus*, vertigo, and even intra-cranial suppuration."

Mary G., aged thirty-nine, married, mother of five children; voice husky; has been a victim of asthma since girlhood, and has complained for the last eleven years of a singing in both ears, aggravated especially in the evenings of damp seasons. The patient had taken the orthodox remedies for the relief of her symptoms, which yielded but little up to this time. The nose was found to contain a mass of mucous polyps, filling both cavities, and extending into the rhino-pharynx. No operation had ever been suggested. The patient was, therefore, unwilling to submit to one. Finally she consented, and the growths were removed. In consequence of frequent paroxysms of dyspnœa, the operations were often delayed, but ultimately the nasal cavities were cleared, and the condition of our patient greatly improved. It is now fourteen months since any surgical interference has taken place, and up to the present writing there has been no recurrence of the tinnitus. The asthmatic attacks have become less frequent, much shorter, and less severe. Robinson boldly states, that "tinnitus aurium frequently occurs as a complication of nasal polypus." We are all aware of the results of any interference with proper respiration."

Dr. Bosworth's forcible statement adds weight to the conclusions of the writer, when he emphasizes the following:

"A result of interference with normal respiration, rarification of air, gives rise to a condition of hyperæmia of the mucous membrane of the eustachian tubes, and middle ear; this eustachian orifice is closed, the air in the middle chamber rarified, the drum head retracted, and further changes in connection with the more intricate apparatus of the ear, result in its impairment. In a very large number of cases this process continues to lead to ankylosis of the ossicles, and atrophy of the tympanic membrane." This statement, coming from the pen of such an authority, must certainly add weight to our argument, and enlighten our interrogations in so important a subject as that under consideration.

The conclusion naturally arrived at in reviewing the foregoing cases of nasal stenosis is this: That whether we attempt to locate lesions in the external auditory canal, the middle ear, or even the labyrinth itself, it is our duty to make a thorough and complete examination of the nostrils, and their accessory cavities, and to remove all offending tissues that serve to interfere with the proper respiratory functions of the nose.