

**REMARKS ON POST-NASAL ADENOIDS;****Conditions simulating their Presence or their Recurrence; Method of Operating.<sup>1</sup>**

By Dr. DUNDAS GRANT.

AMONG the enormous mass of literature connected with the subject of post-nasal adenoids, it seems to me that there has been a constant repetition of the traditional observations, but there still remain a few points to which sufficient notice has not been directed. I allude particularly to the question of the recurrence of adenoids, and recurrence or persistence of the symptoms of adenoids, believing that the latter is at least as frequent as the former.

The recurrence of adenoids appears to me to be extremely rare, but all observations on this point are apt to be fallacious, in as much as a patient in whom recurrence takes place is more likely to be taken to some practitioner other than the one who originally operated. At the same time, if this were a frequent event, I am disposed to think that we should find it more strongly insisted upon by writers on the subject, and I think that I, as an individual, should have seen it more frequently than I have done. In my own experience the recurrence of adenoids to any material extent has only come under my notice in very young children.

As regards the recurrence or persistence of the symptoms of adenoids, this has been generally due to one or other of the following causes: first, the subsequent development of a hypertrophic condition of the nasal mucous membrane; second, the neglect on the part of the patient or its friends to keep up the energetic practice of nasal breathing; third, anterior projection of the atlas vertebra; and, fourth, fixed idea.

First, in cases of *very young children*, several of the other elements are apt to concur. There is a difficulty in getting the patient to breathe through the nose with intention, there is a certain difficulty in effecting a complete removal of the growths, and there is a greater predisposition to the proliferation of lymphoid tissue under very slight provocation. In the absence of a thorough insistence upon the practice of nasal breathing, there is a tendency for the normal development of the nasal cavities to be retarded. As a rule, however, this does not occur, because in appropriate cases the pleasure of respiring freely through the nose is generally sufficient to lead the patient to make use of that method.

In one of my cases (a boy of about twelve years of age, from whom I had removed adenoids) the symptoms returned in as pronounced a form as before the operation, so much so as to lead a skilful provincial surgeon to jump at the idea that the growths themselves had recurred, and even to believe on posterior palpation that he felt them there. This was absolutely due to the prejudice inspired by the apparently unmistakable physiognomical indications. The patient was brought to me and I was

<sup>1</sup> Read at the April Meeting of the British Laryngological, Rhinological, and Otological Association.

quite prepared from his appearance to believe that the growths had returned, in spite of the fact that I had removed them most completely. On post-nasal palpation I was able to assure myself that no recurrence whatever had taken place, and I took the opportunity of calling in a colleague to confirm my opinion. There was, however, a very considerable *hypertrophy of both inferior turbinated bodies*, and under the galvanocautic treatment the size of these bodies was satisfactorily diminished, while the "adenoid" symptoms entirely disappeared.

An anterior *projection of the atlas vertebra* has in several of my cases been the apparently sole, or at least supplementary, cause of the rapid recurrence of the adenoid symptoms. In a tall, over-grown young lady, aged fourteen, the most remarkable mental, aural, and other general disturbances were present, until in September, 1892, I removed the then existent crop of adenoids in her naso-pharynx. The improvement in her condition was extraordinary and her stature increased to an unusual extent. Four years later she was again brought to me on account of a recurrence of the symptoms, and probably of the adenoids. On examination of the naso-pharynx there was indeed a slight redevelopment or regrowth of the pharyngeal tonsil, though not sufficient to account for the nasal obstruction, but while making the examination I was struck by the remarkable degree of bulging of the cervical vertebræ (the atlas, and possibly to a slight extent the axis), which diminished the lumen of the air passage between the hard palate and the posterior wall of the pharynx to such an extent as almost to prevent the introduction of the finger, and certainly to make it extremely difficult to remove the small mass of lymphoid tissue in the hollow lying above this projection. The stenosis of the passage was somewhat diminished when the patient's head was raised forcibly and not bent either forwards or backwards. In point of fact the patient had acquired a somewhat exaggerated curvature, and allowed her head to sink, so that the bulging was exaggerated from her defective attitude. By means of Quinlan's form of post-nasal forceps, of which I append an engraving, it was very easy to remove the growths, as will be obvious when the somewhat peculiar shape of the forceps is considered. This was supplemented by the use of Golding-Bird's post-nasal curette. This latter instrument is obviously the only one which has the slightest chance of reaching such a recess as I have described, where any of the usual modifications of Gottstein's instrument would have been obviously unavailing. This patient was encouraged to hold herself up, and was placed under the care of Miss Chreiman for gymnastic exercises. Mr. Edward Cotterell examined her on account of some obscure injury to the lower part of the spine, and diagnosed a traumatic coccygodynia. A marked improvement took place, the removal of the adenoids being only a supplementary element in this case, as I have no doubt it is in many others.

In numerous instances I have found this anterior projection of the atlas, and I think it deserves more attention than has hitherto been paid to it. A reference to it will be found in the final chapter of Zuckerkandl's "Normal and Pathological Anatomy of the Nose and Nasal Cavities"; but its influence as an element interfering with proper pronunciation after

the operation for cleft palate has been alluded to with considerable emphasis by a writer upon that subject.

Lastly, my friend Dr. Ezard referred to me, for my opinion, a case in which he believed he had removed the adenoids completely. In spite of this, and in spite of the fact that the nasal passages appeared to be perfectly clear, the patient failed to acquire the art of breathing through the nose. I was able to confirm Dr. Ezard's opinion that the operation had been absolutely complete, and that there was no mechanical obstruction, and I could only explain the persistence of mouth breathing by the fact that the patient suffered from the *auto-suggestion* or *fixed idea* that she was unable to breathe through the nose. By somewhat roughly applied moral and physical suasion, while keeping her mouth shut I was able to force her to breathe through her nose. When at length she was once convinced that the passages were free, she continued to make use of them in the natural way.

I offer these few considerations as having in my opinion considerable importance, and I believe a slight modicum of novelty, for the consideration of my medical brethren. They seem to give some explanation of certain results which have tended to bring the operation for the removal of post-nasal adenoids into unnecessary disrepute.

In operating on post-nasal adenoids, on any except very young children, I find the anæsthesia gained by nitrous oxide, or nitrous oxide and oxygen, administered by a skilled person, is amply sufficient, if the operation is properly methodized and if all arrangements are completed beforehand, so that not a second of the anæsthesia is lost.

The mouth is propped firmly open by means of a gag, preferably Wingrave's. I protect my left forefinger by means of a leather guard, and I soak the finger-nail in absolute alcohol, which may contain five per cent. of carbolic acid. As soon as the patient, who is in a sitting posture, is completely under the anæsthetic, I quickly introduce the left forefinger behind the soft palate, and, while scraping together the adenoid growths, especially from the fossæ of Rosenmüller, I acquaint myself with the general bearings of the parts. This done, I introduce a fine pair of post-nasal forceps (below described), *and which I have already at hand*, removing in one or two applications the bulk of the growth. I then very rapidly scrape the vault and back wall of the pharynx with Golding-Bird's curette, and finish up with a digital examination, re-applying, if necessary, the curette.

I attach great importance to the information as to the seat of origin of the growths derived from the first introduction of the fingers. Occasionally the roof of the naso-pharynx is comparatively horizontal, and the growths are chiefly situated in that position. In such a case I make most use of the forceps, either my own or Quinlan's. On the other hand, if the roof more nearly approaches the vertical, or the growths are situated chiefly on the posterior wall, I frequently omit the use of the forceps altogether, and confine myself to Golding-Bird's curette. Again, as I have mentioned above, should there be any considerable projection of the atlas, I resort to the use of Quinlan's forceps.

The forceps which I find in general most useful are made on the

model of the Quinlan as regards the handle and shanks. They are light, and though quite long enough, are not so unwieldy as Löwenberg's original model. Their tips are spoon-shaped and fenestrated, so that they can hold a considerable amount of tissue at a time. They are flat from side to side, so that they can be easily introduced between the mass of adenoids and the side walls of the naso-pharynx, and they are comparatively wide in their antero-posterior measurements. The cutting surface is carried down posteriorly, and not in front; but at the same time they are not allowed to gape, so as to be incapable of grasping any growths adherent to the posterior choanæ. They have been made for me by Messrs. Krohne and Sesemann, and I have found them more universally applicable than any others that I know.

Quinlan's forceps will be seen to possess the above qualities, but they have a peculiar backward projection of the scoop-like tips, which hardly seems adapted to the conventional anatomy of the naso-pharyngeal space. Be that as it may, I have found them extremely serviceable all round, and in cases of projection of the atlas vertebræ absolutely indispensable.

Golding-Bird's post-nasal curette differs from Gottstein's in the fact that its cutting edge, instead of being directed more or less vertically downwards and flush with the ring, of which it forms part, looks backwards beyond the general surface of the ring. In this way it is something like a finger-nail turned round, and is peculiarly well adapted for scraping down the posterior wall. At the same time, its shank is so fine that it is possible to manipulate it while the forefinger of the left hand is in the naso-pharynx, a proceeding which is theoretically perfect, though practically uncalled for.

The only disconcerting incident in connection with the use of nitrous oxide gas for this operation is the occasional occurrence of a more or less marked degree of opisthotonos, but if the attendants are ready for this, it need not interfere with the progress of the operation if the surgeon is prepared to proceed in spite of it. The advantages of the sitting posture are very considerable, and if the precaution is taken of binding a strap or a jack towel round the patient's thighs and the seat of the chair, the inconvenience arising from the contraction of the erectors of the spine is of little moment.

So much for the method of operating under nitrous oxide; the question of its adoption in preference to chloroform or ether cannot be lightly set aside. It would be idle to pretend that in every case nitrous oxide gives as long a period of anæsthesia as one could wish for, or that it always permits of as absolute a scraping of the naso-pharyngeal mucous membrane as a longer anæsthesia would render possible. I hold, however, that in the majority of cases it gives quite as long a period of unconsciousness as one can possibly require with a properly methodized operation, and in almost every case quite as much as is necessary, although there can be little doubt that the more complete the operation the less chance there is of recurrence. I am not in possession of any information to prove that the percentage of recurrences is greater in cases in which nitrous oxide alone has been used than in cases in which the more prolonged anæsthesia of chloroform or ether has been produced. With any of these there is a certain fractional probability of recurrence, and we

have to look for other causes to account for it. On the other side we have to balance with the greatest seriousness the risks attaching to chloroform anæsthesia, and probably necessarily greater in an operation for a disease which in itself already causes an impediment in respiration ; and we have to go no further for a somewhat sensational confirmation of this point than the melancholy scene enacted in the Coroner's Court within the last eight days.

In very young children chloroform is exceptionally well borne, and the apparatus necessary for the administration of gas is unduly alarming to them. We are quite justified in making this exception to the rule of administering nitrous oxide, otherwise this unimpeachable anæsthetic ought, in my opinion, to be exclusively used.

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### **NOTES ON VARIOUS LESIONS OF THE EAR, THE NOSE, AND THE PHARYNX**

**Found in the Children in the Institutions for the Deaf and Dumb. The  
Methods of their Treatment.**

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THE writer has been specially occupied for several years with the medico-scholastic institutions for afflicted children, and he has published, in collaboration with Couétoux (Nantes), the first manual, with a preface by Bourneville, giving a *résumé* of this question. He shows, in the first instance, how defective the organization for such instruction is in France. As regards the deaf and dumb, the medical supervision is actually wanting, in spite of the fact that the whole subject of deaf-mutism is primarily dependent upon pathology and physiology. Having had to treat as a specialist for the last year the children belonging to an institution for the deaf and dumb, he has made a careful examination of the state of the nose, pharynx, and ears. Out of forty-five children twenty-three were totally deaf, and twenty-two had some remains of audition in various degrees. The cause of the deafness has generally been very difficult to determine, because the children are often admitted without medical examination ; and even when this has been made, the certificates when they have been handed in have been of little value. The examination of the twenty-two who were not completely deaf, revealed, in eight, lesions of the internal ear, and in fourteen lesions of the middle ear only. Up to the present the author has confined his attention to the fourteen in whom otitis media alone was present. In twelve he found chronic catarrhal otitis media, and in two the adhesive form resulting from purulent otitis ; in six cases there was obstruction of the Eustachian tubes.

The lesions of the rhino-pharynx and of the nose were as follows : hypertrophic rhinitis, vegetation, six times ; enlargement of the adenoid

<sup>1</sup> Author's abstract of a paper read before the French Society of Laryngology, etc., April, 1897.

tonsils three times. In none of these fourteen children were there any changes of note in the larynx.

The treatment was divided as follows: removal of adenoid vegetations and of tonsils in six cases; cauterization of the turbinated bodies and the employment of bougies in eight; inflation in fourteen.

As regards operations, the writer dwells upon the difficulties which he met with at first in obtaining the consent of parents for the six operations, which were the first which had been practised in the institution since its foundation in the year 1852.

Before giving the results of the treatment the writer refers to their object. There are three indications: first, to remove all obstruction to nasal respiration; second, to remove any condition interfering with the articulation of words; third, to endeavour to improve audition in every possible way.

This classification points specially to the oral method universally employed in the instruction of deaf mutes at the present day. For learning to speak, the deaf mute ought to respire normally. It is more necessary for him than for the normal child that there should be nothing interfering with articulation. These two primary principles are not sufficiently recognized by the teachers in the institutions, because no one has enlightened them upon this point.

Lastly, any improvement in the hearing, even in the slightest degree, is of the greatest service to the deaf mute. Those who hear, even though only words uttered close to the ear, acquire more easily and more thoroughly the oral method than the others. A radical cure is not the only object of the medical attendant, and he ought not to neglect any case where the slightest improvement in audition may be obtainable.

The results obtained in six months by the author have been—(1) As regards respiration: six cases, six cures. (2) As regards speech: speech distinct, two cases; speech improved, four cases. (3) Hearing power: fourteen cases, thirteen improvements.

There is no difficulty in drawing an inference from these encouraging results, and it is much to be desired that all institutions should have a medical specialist, devoting his time entirely to the pupils and the instruction of the young deaf mutes, who have been absolutely neglected up to the present.

*D. G.*

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## THE PRELIMINARY TRAINING AND METHODS OF OPERATING ON LARYNGEAL GROWTHS *per vias naturales*.

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It was with much pleasure that I accepted the invitation of our President to open a discussion on "The preliminary training and methods of operating

<sup>1</sup> Read at the July meeting of the British Laryngological, Rhinological, and Otolological Association.