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**SOME SUGGESTED ALTERNATIVES TO OPERATION FOR
ADENOIDS AND ENLARGED TONSILS IN YOUNG
CHILDREN.¹**

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THE feeling of medical men against adenoid and tonsil operations, especially in young children, has often suggested medicinal and hygienic measures. The similar feeling of the children's relatives has been exploited by faddists and clever people. A certain section of the lay press is always ready to print anything that may provide a sensation regardless of the consequences to an uninstructed public, unable to form any judgment of its own and dependent on such oracles for its opinions. It is still more unfortunate that medical men distinguished in other fields of study, but obviously without the necessary technical skill and experience, should lend the support of their reputations to these fads, and do themselves injury by basing their advocacy on utterly inadequate evidence. Pathological enlargements of the pharyngeal, palatal or lingual tonsils that have passed a certain stage in size and connective-tissue proliferation cannot be made to disappear by breathing exercises, thyroid extract, nose-drill or snuffs.

The subject of snuffs is not one to be sneezed at, and would open up delightful if dusty vistas of research to a member of our Historical Section. He must not "take it in snuff" if Shakespeare yields him nothing in our sense of snuff or sneezing, but he can pass from Dioscorides to Dobell, from the sternutatories of Celsus to the "Pinch of Snuff by Dean Snift," and find none of it barren.²

When I went into this snuff business ten days ago I thought it could be easily laughed out of Court, and so it could on its merits; but it is so involved in honest misconceptions that it has to be taken more seriously than it deserves.

One had heard of it vaguely for some years as the Hancock treatment. It received, however, a special stimulus in the "big gooseberry" season of last year—a time when we are apt to lose sight of our *Lancets*.

¹ Précis of a paper read at the Summer Congress of the Laryngological Section of the Royal Society of Medicine, May 2, 1919.

² *A Pinch of Snuff by Dean Snift* is a well-known book amongst snuff-takers.

I think it fairest to make a few quotations from a "Clinical Note" by one of its advocates in the *Lancet* of August 24, entitled, "A Device for the Prevention and Treatment of Adenoids," by Isabel Ormiston, M.B., Medical Inspector of Schools, Tasmania. Though at first sceptical as to the value of the Handcock Treatment, Dr. Ormiston was not satisfied with the results of the usual operation. The device consists "in the production of a sneeze by lightly touching the nasal septum near the tip of the nose with a slightly irritant powder made of iris root and soap."¹ One cannot help recalling Pope's lines:

"Just where the breath of life his nostrils drew
A pinch of snuff the wily virgin threw."

Though it would at first appear that one sneeze has even more effect than that celebrated in "The Rape of the Lock," we learn that a course of sneezing is necessary, supplemented by handkerchief drill on an extensive scale in various "experimental clinics." We even read of a man aged forty-two, who was relieved of his headache by being "made to sneeze" for six months, though it is naively added, apparently as conclusive evidence of cure, that having been sent home to continue the treatment "he has not since been heard from."

Out of the suggested large numbers of children subjected to this "Handcock treatment," Dr. Ormiston gives only two cases as typical specimens of its success. There is no evidence that a reliable diagnosis of adenoids had been made; still less are the results of the snuffing and sneezing and snorting ascertained by examination, but letters from the mother of one and the father of the other are quoted testifying to an improvement in general health which might have been in spite of the treatment.

It is not so long since another Australian writer set out to teach us something he had learned about the anatomy of the septum which was new to him though not to Zuckerkandl. Dr. Ormiston appears to have fallen into a similar error in regarding errhines as a new treatment for catarrh however new it may be as a cure for adenoids. The literature of the past down to Dobell and even Morell Mackenzie teems with instances of their use for catarrh; but as regards adenoids, Morell Mackenzie, with a sure instinct from the very first period in their history, advocates operation when there is evidence of obstruction to breathing or danger to hearing. Celsus gives several lists of sternutatories but he does not mention iris amongst them, although he gives it as a purgative and counter-irritant—qualities recognised in the U.S. Pharmacopœia at the present time. These would hardly recommend it for repeated application to the nasal mucous membranes. Leaving Dr. Ormiston's article for the moment I will add only that it, as well as the letters of eminent physicians, anæsthetists and others in support of it, can be recommended as instances of large deductions from slight or erroneous premisses.

In the few minutes remaining to me there is happily no need before such an audience to waste breath on breathing exercises. We all know their usefulness to be chiefly post-operative.

¹ Apparently the powdered rhizome of *Iris versicolor*, popularly known in England as "orris root," and much used in tooth-powders, and as a "baffer" to conceal the odour of alcohol. It is official in the U.S.P., and besides being an efficient cathartic is credited with a specific influence in thyroid gland enlargements. This latter action might be recommended to the consideration of the advocates of thyroid extract as a cure for adenoids.

I pass therefore to another alternative to operation. Based on the views of Hertoghe and Rothschild it has been warmly advocated by Dr. Leonard Williams in this country.¹ I am indebted to his courtesy for reprints of his various communications. He is strongly in favour of the view that adenoids and enlarged tonsils are a symptom of thyroid inadequacy, and he is supported in this (with, however, an important qualifying "if") by MacCarrison in his very valuable work, "The Thyroid Gland in Health and in Disease," which appeared in 1917. Dr. Williams also recommends thyroid extract in one of the letters that appeared in the *Lancet* in support of Dr. Ormiston's crusade against operation. With all possible respect I must say that there is nothing in these writings that would lead one to think thyroid extract has more than a limited influence, if any, in causing what he calls the "disappearance" of adenoids. There is only a probability but no positive proof that any of his cases had "adenoids," or anything more than a slight or temporary hyperæmia of the pharyngeal tonsil. It is only fair to say that Dr. Williams is chiefly occupied with the connection between enuresis and hypothyroidism, and that is perhaps why in all but two cases he omits to mention the effect of the extract on the "adenoids" assumed to be present, and then, like Dr. Ormiston, he infers their "disappearance" from an improvement in the breathing.

Like so many others, I am becoming more and more convinced that the revival of the old "knife and fork" operation for enlarged tonsils, which, as improved, we know now as enucleation, is the method that will give permanent good results in most cases. For this reason I was induced by Dr. Williams' articles to try thyroid extract in order to give weakly and apparently sub-thyroid children under four years old a chance of avoiding operation until it could be undertaken in more favourable conditions. Since 1914 I have collected twenty cases of children from one and a-quarter to four and a-quarter years old in whom the presence of "adenoids" of notable size was made certain by digital examination before treatment and the result estimated after three months in the same manner. The eleven boys were part of seventeen cases in which circumcision had to be performed, and advantage was taken of the anæsthesia in six cases under two and a-half years to palpate the nasopharynx. It was only in these six cases, and in two girls of eighteen and twenty-two months respectively, in whom the diagnosis was inferential, that thyroid extract appeared to have a distinct influence in diminishing the adenoids. One of the girls and two of the boys had a marked increase of "adenoid" symptoms a year later after measles and considerable masses were subsequently removed. The other girl died of influenza last autumn. Operation has been avoided in the case of the remaining four boys for periods varying from eighteen months to two years and three months from the beginning of treatment. The dose employed varied from three-fourths of a grain to two grains daily, and the effect seemed better when it was divided into three daily doses than when given in one. In all cases the extract was supplemented by cod-liver oil and iron or maltine and iron. The children under two and a-half years old had enlargements of the pharyngeal tonsil in the form of the "soft gelatinous mass" referred to in the Children's Section as Sir Felix Semon's description of a class of case likely to be amenable to medicinal or hygienic treatment. All the other cases, *i. e.* five boys and seven girls,

¹ *Lancet*, May 1, 1909; *Brit. Journ. Child. Dis.*, June, 1909; *Polyclinic*, June, 1909, etc.

had a firmer form of hypertrophy, and in all these the influence of this treatment was at most only transitory. No diminution of anything that could be called a hypertrophied tonsil was observed. To these must be added the two boys who were operated after measles, so that of the whole twenty there were only the four boys under two years and three months in whom a distinct result in avoiding the need for operation may be claimed. On the other hand all the children were improved in general health even before it became necessary to operate.

Those who propose alternatives to operation in these cases must observe conditions that are the merest commonplaces to members of our Section. The diagnosis must be clearly established; it must not be forgotten that the normal adenoid tissues are liable to increased functional hyperæmia and swelling, and this must not be mistaken for catarrh, nor should the cure of catarrh alone by medicinal and hygienic treatment be mistaken for the disappearance of adenoids. Finally, only a digital examination can decide the claims of any treatment. The post-nasal mirror is not to be relied on in young children even in skilled hands. It does not appear to me that in the cases treated by the Handcock method these conditions have been observed.

As regards the snuff treatment itself, we know that an irritant powder that produces hyperæmia will cause hypertrophy if used repeatedly. Mr. Stuart Low in the Children's Section very properly pointed out the effects of the engorgement caused by such substances, and I hope their use will be condemned by the Section. The handkerchief drill has also its dangers. The handkerchief, especially the child's, as a cause and carrier of disease would make an interesting and valuable study. The experiments of StClair Thomson, Hewlett, Lermoyez and others have shown that the nasal mucus is the great respiratory germicide. The normal membrane puts forth only enough of this precious fluid to keep it moist and arrest impurities. Enforced and repeated nose-blowing is likely to produce chronic rhinorrhœa; and I have lately seen some out-patients in whom this symptom was attributed to "handkerchief drill," and from whom I have removed large adenoids. When the secretion has become muco-purulent or purulent it should be got rid of, but I do not think the best way is to teach rows of children to grasp their noses with their fingers in a handkerchief, and raise their arms to the level of their shoulders in order to fill the chest before expulsion. One can never be sure that the child is grasping the nose properly and that it is not forcing against an obstruction. To my mind the proper way is to seek an opportunity of doing so *more antiquo*, or, as StClair Thomson says, *à la paysanne*—that is, with a finger on one ala and the other side free. It is the natural way, though not in the accepted code of good manners, but privately and regularly practised has undoubted advantages in the later stages of catarrh and other conditions of abnormal secretion.

The whole question how far medicinal and hygienic treatment of adenoids and enlarged tonsils can take the place of operation depends on the amount of connective-tissue proliferation which we are lately learning to call fibrosis. This constitutes the disease, and no treatment, not even Margate, as Dr. William Hill said, will take the place of operation if it has passed a certain point. I agree with the remark of Dr. Irwin Moore that fibrosis may occur at almost any age, but it is far less likely to occur in children under two and a-half years old. The reason a diminution was observed in the adenoids of the four boys under this age appears to have been that there was not time for any marked fibrosis.