

that he had never heard who was the president of the United States and that the name of the ship he came on was Mr. Cunard, we should certainly be justified in saying that this man was mentally deficient. But if a Sicilian peasant were to give us the same answers the same conclusions would not necessarily follow. I say Sicilian because he represents this peculiar type of ignorance. The Russian Jews, Slavs from Austria and Russia, as well as the peasants from the Balkan states could all be chosen to represent other types of ignorance which would be just as suggestive of feeble-mindedness were they encountered among our own people. Out of 100 non-English speaking adult immigrants who were subsequently determined to be mentally normal, there were 43 who did not know the name of the ship on which they came. Out of this same hundred there were 32 who could not count backward from 20 and who were apparently unable to grasp what was meant by the request, even when a conscientious effort was made to explain it to them.

The more carefully one studies the whole question of feeble-mindedness among immigrants the more he will become convinced that the diagnosis must be established by a careful weighing of all the evidence which every reputable method of examination can furnish. The Binet tests, the Di Sanctis tests, the apparatus of Healy and Fernald are all useful as adjuncts and are especially valuable in determining the lines along which the alien should be especially examined and in helping one to come to a rapid conclusion. But upon whatever method or combination of methods the examiner finally comes to place the most reliance, he should always bear in mind the fact that what he really desires to determine is whether or not the alien is lacking in one or more mental traits which will make it impossible for him to assume his normal relations to society. With this idea uppermost in his mind he will gradually learn to interpret the findings of the very valuable artificial aids in their true light and will not place undue significance upon the apparent absence of mental ability in any one particular field.

Finally, however difficult the problem of determining the mental status of the immigrant may appear, it is in reality not a hopeless task. The obstacles to be overcome are those which increased facilities for examination can readily surmount. There is a remarkable unity of opinion among all those who have had experience with this particular line of work as to just what is needed to perfect the system.

The aids to diagnosis, the proper interpretation of findings, and the general situation are all well in hand. The one thing lacking is a larger force of trained men and interpreters and a place for them to work. These things take money and so far Congress has failed to adequately provide the funds which the exigencies of the case require.

PERSISTENT MOUTH BREATHING FOLLOWING ADENOIDECTOMIES.

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WHY are there so many failures after adenoidectomies and what can be done to facilitate nasal breathing? How often patients return anywhere from one to six months after operation with little or none of the nasal respiration that was so emphatically promised!

Parents are told to compel the young patient to breathe through the nose—that it is simply the "habit" of mouth breathing, formed from birth to the present time, that prevents nasal breathing and if the child is constantly told to keep the mouth closed and force air through the nostrils—a cure will be effected. This may be true in some cases but in many the difficulty lies in abnormal conditions within the nasal cavities. It is obvious, then, that simply removing the adenoid, however completely, will not cure mouth breathing when there is nasal obstruction of any cause.

J. V. White¹ speaks of variations of the sphenoid bones, of the location of the fossa of Rosenmuller and of Thornwald's disease, as factors determining the post-operative mouth breathing. Maurè gives similar reasons. Another factor according to Brühl of Berlin, is delay in removing the adenoid until the bony framework is formed with a high palatal arch. In these high arch cases, mouth breathing will persist after operation and the patient must be referred to a dentist for the spreading of the arch and the regulating of the teeth. These conditions are also the cause of deviated septum, as there is not sufficient room for the septum to grow straight. This type of case can usually be recognized by the elongated shape of the face and skull.

An examination of the nose, which should be a matter of routine in every case of adenoid, will often reveal hypertrophied lower turbinates or deviated septum. The presence of enlarged lower turbinates, deviation and spur of the septum are said to favor the development of adenoid, but, according to St. Clair Thomson of London, it is much more likely that these intra-nasal conditions are secondary. Diemont² expresses the same opinion and has observed the co-relation of hypertrophy of the lower turbinate with adenoid.

By enlarged turbinates a true hypertrophy is meant and not the vaso-motor type or the enlargement caused by constitutional diathesis. These three types can be differentiated by a thorough examination.

The vaso-motor lower turbinates are pillow-like, smooth, red or pinkish in color and may seem to be in contact with the septum or with the middle turbinates. A probe sinks as if into an air cushion. The application of adrenalin and cocaine causes shrinking, but when the ef-

fect of the solution has worn off the turbinates swell to their former size.

The truly hypertrophied turbinates are not smooth but nodular and pebbly and resemble adenoid vegetations. In color they are pale pink. Adrenalin and cocaine does not produce marked contraction and probe pressure does not cause pitting but gives the sense of resistance of thick, fleshy tissue. This condition is caused by an hypertrophy of the adenoid layer of the mucosa.

The hypertrophy caused by constitutional disease (syphilis) is hard to distinguish from a true hypertrophy unless a close view shows some ulceration. This type with insignificant ulceration is not rare and should always be borne in mind.³

The question now arises what can be done to facilitate nasal breathing in these cases? Labourè advocates a complicated system of breathing exercises including the immobilization of the free moving parts of the thorax.⁴ It would seem that this method is not suited for children, hence operative treatment of the nasal condition gives the most promise of benefit.

If the nasal examination shows a deviated septum, should a sub-mucous resection be considered when the patient is under sixteen years of age? It is better to wait at least until that time in life has been reached because we could not be certain what influence the sub-mucous operation might excite upon the development of the nose; also, more regenerative tissue forms, after this operation, in children than in adults, and the object of the treatment might then be nullified. Freer, however, operates on quite young children.

It is in cases, where the type of truly hypertrophied lower turbinates, previously referred to, are found and where there is no considerable deviation of the septum, that a simple operative procedure has shown good results.

There is at present a disinclination to do turbinotomies or turbinectomies unless a positive indication exists, such as obstruction to the drainage of the accessory sinuses of the nose or polypoid degeneration of the turbinate. The tendency to an atrophic nasal condition which so often results, is in no way desirable. Stewart⁵ says an inferior turbinate should never be entirely removed. In cases of too free removal, the loss of its moistening and filtering action produces the discomfort of dry pharyngitis and laryngitis.

However, using the turbinate scissors and simply cutting a slice of the thickened mucous membrane of the inferior turbinate along the lower and posterior portion, parallel to the long axis of the bone, and being extremely careful not to cut the bone itself, will not cause atrophic changes. The healing will leave a linear surface scar and the cicatricial contraction will widen the nasal cavity enough for all breathing

purposes. This operation should be done at the same time the adenoid is removed and must be the first procedure so as to avoid clouding of the nasal cavities by blood. The nares need not be packed as the bleeding soon stops, but it is well to keep cargin membrane between the operated turbinate and the septum to avoid the formation of synechia. This treatment should not be undertaken during the age of puberty in male or female, as at this time the entire nasal mucous membrane is in a state of turgescence and cauterization or removal of tissue should be deferred.

Kyle says that electrolysis, using the bi-polar method, has given favorable results and has the advantage that tissue is conserved, there is little reaction and no danger of synechia. But this treatment requires frequent sittings and is, therefore, tedious and extremely difficult with children.

According to Freer, the use of the galvanic cautery is unsatisfactory and this opinion is shared by St. Clair Thomson who says that the galvanic cautery destroys a certain amount of epithelium and the steam and heat it produces causes a reaction in the surrounding tissues and makes it difficult to limit its area of reaction.

SUMMARY.

The writer wishes to emphasize these points:

1. For the cure of persistent mouth breathing the nasal breathing exercises have not proven efficient.
2. An operative treatment of the nasal condition is indicated. Such treatment must be appropriate for the age of the patient.
3. Patients should have the adenoid removed before the typical high palatal arch is formed.
4. If this high arch is formed the treatment should be dental; such as spreading the arch and regulating the teeth.
5. Cutting a slice of mucous membrane from the enlarged lower turbinates, as an aid to nasal respiration, has given good results.
6. A sub-mucous re-section should not be done in children under sixteen.
7. Electrolysis, using the bi-polar method, is effective in reducing the enlarged turbinates but is not suited for children.

REFERENCES.

- ¹ New York Medical Journal, September, 1910.
- ² Dublin Journal of Medical Science, September, 1910.
- ³ Freer, Laryngoscope, November, 1911.
- ⁴ Archives Internat. de Laryngology, April, 1911.
- ⁵ Protocol of Laryngology, London, March, 1898.