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AUTOGRAMS OF NASAL RESPIRATION.¹

By Dr. G. SANDMANN, Berlin.

EVERY rhinologist has observed cases in which the nose appears to be considerably narrowed by spurs or swellings of the turbinated bone, or by secretions of some sort or other, although but little complaint is made by the patient about difficulty in breathing; on the other hand, difficulties of this kind are met with when there is no apparent impediment discoverable.

To ascertain the true condition of such cases we have often resorted to the simple means of closing one nostril with the finger, thus forcing the other into activity; the noises produced thereby have acted as guides as to the existence or absence of a defect and its importance.

It is plain that this method permits only of approximate judgments, and that minor stenoses escape notice, while it proves an utter failure in locating the affection; for if one nostril be closed, the pressure with which the air is forced through the other is proportionately increased, yet altogether overcomes at times a smaller obstacle. The nose seems to give free exit to the air, while this is in reality not the case. In a quiet respiration, however, the breath escapes through that nostril which is normal, while not passing the impeding cause in the affected nostril.

For some time past I have adopted another method in making my examinations. It is very simple, but shows the stenosis so markedly that I have decided to speak about it to-day.

I make my patients breathe through the nose against a plate of glass, a window pane, or some other piece of glass, which I keep for the purpose;

¹ Read at a Meeting of the Berlin Laryngological Society, November 3rd, 1893.

the warm breath, saturated with moist vapour, forms a deposit on the glass, producing a "pneumatype" (breath-picture, "Hauchbild") of the nasal respiration. The plates must not be overheated, lest they fail to show the desired effect.

According to the position in which the plate is held against the nose the figures produced differ in shape. If you hold the plate horizontally the figure will be of a butterfly shape, extending to right and left, separated by a dry strip, produced by the intervening septum.

In a vertical position I let the point of the nose touch the plate. If the nose is quite free and normal the figure produced is heart-shaped. Where the nose touches the plate a mark is left, caused by the moisture of the skin. These heart-shaped figures, of course, vary in shape when one or the other nostril is narrowed or closed. If the obstruction is complete the figure is missing altogether; if it is only partial the figure is smaller than its fellow, or it shows a deviation, as is generally the case when spurs are present. In a like manner it may be determined whether the seat of the stenosis is high or low, according to the appearance of the upper or lower parts of the figure. Hence, it may easily be seen that this method possesses great advantages over the former, and is a great aid to the making of a correct and thorough diagnosis.

The great drawback in this experiment is that the figures produced are of too transient a nature, and it is desirable to adopt a process by which they may be fixed and made permanent, in order to compare them before and after operation. After many experiments I have hit upon the following plan:—

I use pieces of pasteboard covered over with slate-paper. The plate is held vertically against the point of the nose, the patient is asked to breathe upon it, and before the breath evaporates from the surface a fine powder is blown upon it through a pulverizer. Pure pulverized sulphur is excellent for this purpose, but powdered boracic acid or similar substances may be used.

The superfluous powder is easily shaken or knocked off, and there is left a well-marked figure of the breath, a "pneumatype." This is then fixed with a spray of varnish, such as painters use for fixing chalk drawings (a spirit solution of shellac). It may be applied with an atomizer.

In this manner I have produced a number of "pneumatypes" of normal noses as well as of a variety of pathological conditions.

THERAPEUTICS AND DIPHTHERIA, &c.

Rethi (Wien).—*Endo-Nasal Mirror*. "Prager Med. Woch.," 1893, No. 42.

LITTLE mobile mirror for introduction into the nose.

Michael.

Zarniko.—*Self-retaining Nasal Speculum*. Aerztlicher Verein in Hamburg, Meeting, October 24, 1893.

INSTRUMENT shown.

Michael.