

is short and the bougie pushed in too far, it projects more or less (1-4 centimetres) into the naso-pharynx, and hangs down back of the soft palate. When in this situation, the patient is sensible of a disagreeable tickling in the neighborhood of the soft palate, producing an unpleasant sensation of strangling. Through contraction of the levator and tensor-palati muscles, the bougie will gradually be forced more and more backward, until, finally, it falls into the pharynx or the mouth. This can, however, be entirely avoided, if we previously measure the length of the nasal passage with a sound, and cut off the bougie accordingly.

If the bougie is wrongly placed in the nasal cavity, we will see in the rhinoscope image its smaller end projecting from between the middle and lower turbinated bones. If it should be pushed in vertically, it can not be seen with the rhinoscope at all, as it will lay more or less curled up, entirely concealed in the anterior nares.

The introduction of a foreign body into the nose almost always causes increased secretion, and from this cause the gelatin becomes liquefied and flows out of the anterior nares. This is to be prevented by tamponing the two apertures with some charpie, so that the melted gelatin is caused to flow out through the posterior nares and into the vault of the pharynx, from whence it is to be removed by coughing or "hawking." In from one-half to two hours the bougie will be entirely dissolved.

The employment of these gelatin bougies for the treatment of diseases of the nasal passages would seem to be extremely rational; *first*, they afford a means by which medicaments can be kept in contact a long time with the diseased mucous membrane; *secondly*, they are easily tolerated by the patients; and, *thirdly*, they produce, even if in only a slight degree, a mechanical pressure upon the nasal mucosa. The introduction of the bougie can be accomplished very quickly and easily, so much so that every patient can learn, without trouble, to apply them. They should be used every day or every other day, in one or both nostrils, as the case may require, or they can be employed in both nasal passages at the same time.

I have now, for a number of months, treated various cases of nasal disease by this method. The most excellent results were obtained in cases of obstructions of the nasal passages following chronic catarrhs.

Patients who for a long time had been treated unsuccessfully according to various other methods, were completely relieved of their troubles by the employment, for comparatively short periods, of the gelatin bougies. The principal remedies employed were copper sulphate, and zinc sulphate, 0.02 grammes (3-10 grain) in each bougie, and other astringents.

This method I believe will also be found to be particularly valuable in the treatment of those obstinate chronic catarrhs which periodically affect many persons in winter. Many of these

individuals, such as public singers, actors, teachers, etc., who often find themselves in this miserable condition, can be practically relieved of their difficulty in breathing, etc., by the regular employment of these nasal bougies.

In such cases we find on examining the nasal passages from the front, only an excessive redness of the mucous membrane, accompanied by a moderate amount of swelling. The rhinoscopic image shows more or less extensive swelling of the mucous membrane on one or both sides of the septum, accompanied, perhaps, with a moderate amount of swelling of the one or the other turbinated bone. This condition, therefore, does not explain the true cause of the great difficulty in breathing through the nose, which is such a troublesome and annoying accompaniment of these cases. The real seat of the trouble lies in the middle and upper parts of the nasal passages, and consequently in locations where a direct examination can not be made except with a delicate probe: this easily makes a passage for itself between the soft and slippery (*succulent*) adenoid tissue.

The employment of the medicated gelatin nasal bougies, has furthermore produced moderately good results, in the treatment of chronic catarrhs of the naso-pharynx (post-nasal catarrh) accompanied with hypertrophy of the pharyngeal tonsil. Excessive hypertrophy of this gland, so that it entirely obstructs and overhangs the posterior nares, is seldom seen. In three years' experience amongst the great mass of materials present at the clinic of Prof. Schrotter, I have noticed it but twice. For the most part, the hypertrophied tonsil does not reach over the septum, and overhangs the upper third or at most the upper half of the posterior nares. The deafness and difficulty of breathing through the nose, which accompany these cases, are in consequence of the simultaneous presence of chronic catarrh of the mucous membrane of the eustachian tube, and chronic catarrh of the nasal passages. Through treatment of the last trouble, with the nasal bougies and by painting the pharyngeal tonsil with tincture of iodine, we can often bring about enough of a cure to at least cause a great amelioration in the previous condition of the parts. Cauterization of the gland with the solid stick of nitrate of silver has also been often employed in Schrotter's clinic; less frequently the application of caustic potassa. The employment of the galvano-cautery, and the extirpation of the pharyngeal tonsil (Michel, Schrotter, W. Meyer, Stork) are, besides, methods well known and approved. In many cases, however, owing to the youth or the nervous condition of the patient, their performance is impossible, and resort must be had to the previously described methods of treatment.

The gelatin nasal bougies have been also used in the treatment of scrofulous and syphilitic ozæna, a thorough cleansing of the nasal cavities and the removal of the decomposed purulent secretions having preceded their application. Some very