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REMARKS

ON

NASO-PHARYNGEAL CATARRH.

BY

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NASO-PHARYNGEAL CATARRH.

Naso-pharyngeal catarrh is an inflammation of the mucous membrane lining the nose and pharynx, and is always produced by one of two causes, viz., an excess of ozone in the atmosphere, or by contagion. The experiments of Schönbein were quite sufficient to prove beyond all doubt that epidemics of acute rhinitis (or acute catarrh) were produced by an agent generated in the atmosphere; that agent being ozone.

Every intelligent observer will agree that atmospheric poison is one of the prime causes; and therefore a discussion as to whether the active agent is ozone or a something else, would be out of place.

As to the contagiousness of the disease, it does seem that the necessary elements for rendering it contagious are present in those cases where the discharge is of a purulent or mucopurulent character. So far as I have been able to ascertain, all attempts to practice inoculation have failed; but there is no question about the Schneiderian membrane being susceptible to the infection of gonorrhœal virus. Gonorrhœal rhinitis is frequently met with in connection with gonorrhœal ophthalmia; and, taking for granted that the pus cell of gonorrhœal virus is in reality the active reproductive agent, it is equally probable that the pus cell, resulting from an inflammation produced by an atmospheric poison, is equally as contagious as that resulting from a gonorrhœal inflammation under similar circumstances.

Dr. Frankel, of Berlin, says that he has known of numerous instances in which a husband who had been perfectly

free from catarrh previous to his marriage was attacked with the disease soon after, when the atmosphere was apparently free from any influence which might produce it; the only cause to be found was that of contagion from the wife who was suffering from the disease.

I have frequently met with several cases in the same family in which the disease attacked each member in succession, the time between the attacks varying, and evidences pointing to contagion as the cause. It is said by some that the disease occurs more frequently among children than adults. I think there is no evidence to substantiate these declarations; at all events, my experience does not enable me to speak positively upon this point, but from what I have seen, I should judge that it occurs most frequently between the ages of twelve and forty-five years. It is rarely met with in extreme old age, and yet no age is exempt from it. As a rule, the more refined class of people consult the physician in the early stages of the disease on account of the unpleasantness which it necessarily produces, and especially the inconvenience while in society.

There is another class of individuals who are uncouth in their manners, and do not seek relief on account of society relations, but because the disease has become intolerable.

The changes presented by the membrane lining the naso-pharyngeal space are numerous and varied. In the acute form of catarrh it will be found swollen, red, and bathed in an excessive quantity of glairy, white mucus, which usually affords a copious discharge from the

nose during the acute attack. The patients complain of a tight feeling across the nose, and are troubled with frequent sneezing, and a "stuffy sensation," as they term it, a feeling as if the nares were plugged with cotton. Nasal respiration is usually interfered with to a greater or less extent in most cases of catarrh, whether acute or chronic.

As the disease advances, the secretions are changed and become muco-purulent or purulent, and in some instances where the disease is chronic the secretions become inspissated, and occasionally close the nares so as to prevent the passage of liquids, or obstruct the breathing. In other cases the membrane covering the turbinated bones, or even that lining the whole cavity, becomes dry and glazed, looking as though it had been varnished. There may or may not be an accumulation of inspissated mucus in these cases. Where the membrane presents a glazed appearance without any perceptible or excessive quantity of deposit, hæmorrhages are liable to occur, which are usually very slight. In numerous cases eczematous crusts are found, the removal of which is usually followed by slight hæmorrhage or oozing of a sero-sanguinolent fluid.

In another class of cases, and especially in the subacute, there is great relaxation of the mucous membrane, and particularly that portion which lines the pharynx. There are a few cases that are free from deposit or secretion of any kind, the surface being slightly moist; these are the most stubborn cases met with, and yield to treatment very reluctantly.

The membrane lining the inferior and anterior portions of the space, in many instances, is perfectly dry, and resembles integument more than a mucous surface. It has somewhat of a pale-pinkish, velvety appearance. This in reality should not be classified as a catarrhal affection, because it partakes of

none of the symptoms that are characteristic of the disease. It has been very properly termed a "proliferous inflammation" by Roosa. There is in reality a multiplication of connective-tissue cells, which necessarily increase the thickness and density of the membrane. The sense of smell in these cases is usually very much obtunded or entirely absent.

Destruction of the osseous tissues of the nose in cases of simple catarrh rarely, if ever occurs. The decomposition of secretions is usually the cause of the disgusting odor that is present in some few instances.

Anosmia may be produced in one of two ways in connection with naso-pharyngeal catarrh, viz., by obstruction due to impacted secretions, or by the sensibility of the terminal filaments of the olfactory nerve being obtunded or destroyed by the disease.

Ear complications are the most frequent and serious that occur. In some cases there is simply a gradual loss of hearing without any pain. In others, violent attacks of acute otitis media are set up, which end in suppuration and become chronic; an occasional one of these terminating fatally by producing cerebritis or abscess of the brain. The great mass of cases of acquired deafness are the results of catarrhal disease of the nose and pharynx, which extends along the course of the Eustachian tube up to the drum cavity. The faucial orifice of the Eustachian tube very frequently becomes inflamed and closes; the result of this is an otalgia intensely acute in character. The pain in these cases is produced by atmospheric pressure from without. Frontal headache is present in many instances, but I think it is not so common as is generally believed.

Treatment.—Cleanliness is one of the important features in the treatment of catarrh of the nose and pharynx. The most efficient instruments for the application of local agents are the spray-pro-

ducer and catarrhal or post-nasal syringe, assisted by the occasional use of the probe. The douche is inefficient and unsafe, under any circumstances, on account of its liability to flood the drum cavity, an occurrence often attended with fatal results. It may terminate in partial or total loss of the power of audition.

The agents to be used in the treatment of catarrh are numerous; to mention them all would be out of place and a waste of time. A few well-selected remedies are sufficient to meet the demand in all ordinary cases. Cleansing and soothing astringent agents are most frequently indicated. Among the list of cleansing agents, muriate of ammonia stands first, bromide of potassium next, and then chloride of sodium. All of these possess the power of dissolving the secretions that accumulate in the nose and pharynx; hence in them we find our first valuable assistant in cleansing. The pain produced by the ammonia and potash salts are about the same; that produced by the potassium salt is of the shortest duration. This, however, is to be accounted for by the latter being a local anæsthetic. In the absence of the others, common salt is a very efficient cleansing agent. The strength of the solutions may be varied from five grains to the ounce of water to a saturated solution. The strong solutions are very painful, and unless finely comminuted are only applicable to a certain class of cases. As a soothing astringent, I think there is nothing to excel a combination of carbolic and tannic acids dissolved in one part of glycerine and three of water. The quantity of either acid may vary from one to ten grains to the ounce of vehicle. This combination, used with the atomizer or post-nasal syringe, produces a cooling, pleasant sensation, and the patient is comparatively comfortable for three or four hours. Where there is an eczematous condition of the nasal

mucous membrane or a very dry pharynx, from two to ten grains of iodine dissolved in one ounce of glycerine is an excellent application; where there is a demand for disinfectants, the liquor sodæ chlorinatæ is one of the most efficient. From ten to thirty minims of the solution to the ounce of water is sufficiently strong. It may be applied two or three times a day in the same way as other solutions. Hydrate of chloral, from five to twenty grains to the ounce of water, is also an excellent antiseptic, and possesses a peculiar soothing property that is very desirable in many cases.

In cases where there are specific complications, the constitutional treatment will be governed by the symptoms manifested in each individual case. In those cases where the membrane is much thickened and dry, and particularly in those cases of proliferous inflammation, the iodide of potassium is an important adjunct to the local treatment.

Curability.—There is no reason why inflammations of the membrane lining the nasal and pharyngeal cavities should not be influenced by the application of proper medicinal agents, as it is more accessible to inspection and medication than many of the other mucous surfaces. The length of time which is required to effect a cure in naso-pharyngeal catarrh is necessarily variable, because some cases are more violent than others; some yield to remedial agents more readily than others; and again, others are aggravated by complications, etc. As the disease is very much influenced by atmospheric changes, occasional relapses may be expected, which will necessarily retard the curative process.

In conclusion, I may say that all cases of catarrh of the nose and pharynx are curable if properly treated, and that syphilitic or strumous complications always render the cure more difficult.

Remarks on the Use of Instruments in the Treatment of Naso-Pharyngeal Catarrh.

For the last few years the subject of cleansing and medicating the naso-pharyngeal cavities has attracted considerable attention on account of the difficulties and dangers which attend some of the processes. There is such conflict of opinion about the various methods of cleansing and medicating these structures that the young practitioner finds many difficulties to embarrass him.

In the application of liquids to the naso-pharyngeal space, there is often great danger of flooding the drum cavity. Such an accident is not always followed by grave results; but it is by no means desirable to have it occur, as it produces alarming symptoms, often difficult to manage.

Of all the methods resorted to for cleansing and medicating the nasal cavities, there is none more popular than the douche. It is inefficient for cleansing or medicating the naso-pharyngeal space, under any circumstance, and is attended with the danger of flooding the middle ear. As a rule, intense pain is suddenly developed by the accident, followed by violent acute otitis media. This is frequently the case despite all the efforts to prevent it.

The acute disease may be arrested or pass into the chronic form, leaving the patient with perforated drum membranes, and in many instances, what is still worse, creating partial or total deafness. Those who are aware of the dangers attending the use of the douche and still persist, ought to be held strictly accountable for any damage resulting from it. The catarrhal syringe is an invaluable instrument in the treatment of many cases of catarrh of the nose and pharynx. The cases that are best adapted to its use are those that are confined to the pharynx and lower portion of the nose, and those that are free from

crusts of inspissated mucus. Where the secretions are very dry and adherent to the membrane, one application of liquid by the syringe does not always cleanse the surface, and it may be necessary to introduce it a number of times to accomplish the desired result. Frequent introductions of the instrument at a single sitting are often objected to by the patient. Children frequently shrink from the use of the syringe on account of its having to be used through the mouth, but after a few applications they usually submit without any trouble.

The question may be asked, is there any danger of flooding the drum cavity with the catarrhal syringe? I have heard of but two cases; one of these was undoubtedly due to the ignorance of the physician, who made the patient put his tongue out while he injected the pharynx. The patient strangled, and the result was that both drum cavities were filled with liquid, which set up a violent acute suppurative otitis media, that resulted in perforation of both drum membranes. The other was a case in which the anterior nares were completely closed with inspissated mucus and prevented escape through the proper channel. The prompt use of the catheter prevented anything more serious than severe pain for a few minutes.

When the nose is in a condition to permit the passage of liquid, the instrument, if properly used, is free from harm in every respect.

It may not be out of place in this connection to say a word in regard to manipulating the syringe. First of all, it is necessary to have light sufficient to get a fair view of the velum palati and fauces. The patient's head should be controlled by one hand and the syringe carefully passed in behind the velum palati. As soon as the instrument is in proper position, it should be emptied and withdrawn instantly. The instrument should never move in the hand,

and in order to withdraw it properly, it is necessary to invert the hand. If manipulated in this manner, there is no danger of abrading the surfaces or inflicting pain.

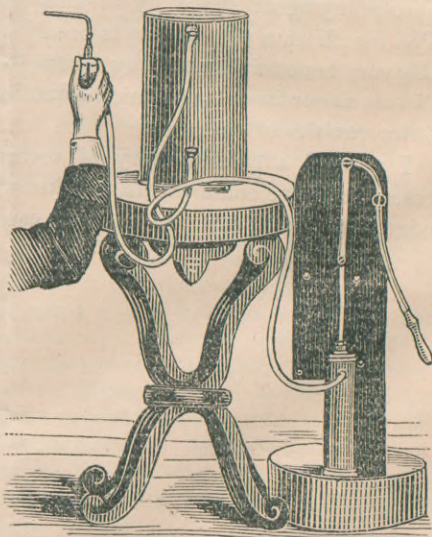
The use of atomized liquids is very much favored in the treatment of nasal catarrh and other affections of the air passages, and at present it seems to be more strongly advocated by the majority of specialists than any other mode. It is certainly the most rational plan yet proposed. It is the only method of cleansing and medicating that can be practiced by both patient and doctor.

This is quite an important point, as it is a matter of necessity in the treatment of nasal catarrh that the parts be cleansed once or more every day; and as there is no other instrument that the patient can manipulate with safety, it is rendered doubly important.

I do not hesitate to say that of all the atomizers placed on the market, none is so well adapted to the requirements of the patient as Holmes' Boston Perfumer. Its chief recommendation is its simplicity of construction, which renders it manageable in the hands of the most unskilled.

Any instrument with which the nebulized liquids may be thrown into the nasal cavities will suffice. Hard-rubber instruments are used for atomizing liquids, but they are not so well adapted to the uses of the patient as the Holmes instrument. I have recently made use of compressed air for the purpose of nebulizing fluids, which I think is far superior to the hand-instrument in ordinary use. The instrument for compressing the air consists of a receiver with a capacity for four gallons, with a stop-cock at the top and bottom, and a force-pump connected with the receiver by a piece of rubber hose. Attached to the stop-cock at the top of the receiver is a piece of hose for attaching the atomizer. (See accompanying wood-cut.)

I claim no invention, because I have invented nothing; but I do claim that I am the first to make practical use of this kind of an instrument for throwing nebulized liquids into the air passages. The amount of pressure used must be governed by circumstances. The advantages of this mode of cleansing and medicating are numerous; it economizes time and labor; it is manipulated with more ease than any other instrument used for such purposes. The powerful force with which the spray can be thrown renders it far superior to any form of nebulizer, because the strong current of air carries the fluid into every recess and insures thorough application.



The degree of comminution that can be produced with this instrument gives it an advantage over all others, because it enables us to use agents that would otherwise be exceedingly difficult of application. In those cases where the incrustations are adherent to the membranes, this is the method above all others. There are many other minor advantages that might be mentioned. The complicated structure of the nasal cavities necessarily renders the application of any liquid difficult; indeed, so difficult is the process that it requires all

the care and skill at the command of the physician to accomplish this seemingly trivial task.

Insufflation or Snuffing.—This is practiced to a great extent by all classes, and especially while bathing the face. In some instances it is done to cleanse the nose, and in others to medicate the passages. Physicians frequently recommend their patients to “snuff” salt-water for the purpose of curing catarrh. The practice of insufflating liquids is certainly an unsafe one, as the drum cavity is occasionally flooded by this procedure; and, moreover, the method is unsatisfactory, because it is impossible to medicate the whole surface of the naso-pharyngeal space by insufflation. The insufflation of powders is occasionally very beneficial, especially where the disease is confined to the middle and inferior cavities of the nose.

I append a brief history of several cases that have come within my knowledge in the last year. In all these cases

the patients were directed by physicians to snuff medicated liquid. In two cases the liquid used was a solution of the chlorate of potash, and in four a solution of common salt was used; in the other case the composition of the liquid was not known. In all these cases the cavity of the tympanum was very much inflamed. In three of them suppuration occurred, which was followed by perforation of the drum membrane. In one the destruction of the membrana tympani was so great that the perforation never closed. Audition in this case and one other was very much impaired.

From the above it will be seen that this is not an accident of rare occurrence, because the practice is a general one, and only a few of these cases come under the care of the specialist and find their way to the press, most of them occurring in general practice and looked upon as ordinary cases of acute aural catarrh.