There was then no evidence of fracture or external injury. For some time after the accident, he was unable to pass his water and was daily catheterized.

On entrance, urine was constantly coming away, drop by drop. The penis and scrotum were every where excoriated. Nothing abnormal about urine, on examination. No tenderness over the region of the bladder. For several days patient remained in the same condition as on entrance.

March 8th.—On introducing a catheter, to give an injection of tincture of opium and water, patient protested against the operation, and then for the first time made the following statement. While under treatment, before he came to the Hospital, his physician left one night an elastic catheter in the urethra and bladder. The next morning when patient awaked he found the bone head and three inches of the body of the catheter by his side in the bed. He could feel the rough fractured end of the instrument at the peno-scrotal angle. He sent for the physician, who came and tried unsuccessfully to remove the remains of the catheter. Failing in this, he told the patient not to feel concerned, for what was left would melt and come away. He then for two or three days continued to pass another instrument. Patient had refrained from mentioning this before, for fear the fragment could not be removed entire.

On introducing a silver catheter and turning its beak in the bladder, a hard rough body could be felt, apparently lying transversely.

Dr. Clark was sent for, the bladder was injected with tepid water and a lithotrite introduced. After careful manipulation the foreign body was seized between the jaws of the instrument and the lithotrite was then withdrawn, its beak being carefully guided by the forefinger along the posterior wall of the urethra. The catheter, which was nine inches long, had been seized at a point an inch and a half from its beak, and in its removal the short end was doubled over upon the long. It was everywhere covered with concretions from the crystallizable substances in the urine.

During the next twelve hours the urine contained some blood.

March 11.—Improving satisfactorily.

This instrument had remained in patient's bladder for over four weeks.

OTITIS EXTERNA, WITH TREATMENT.

By HENRY L. SHAW, M.D.

[Communicated for the Boston Medical and Surgical Journal.]

THE frequency of this disease, its serious nature oftentimes when left to itself, and the trifling manner in which it is regarded by patients, would seem to justify calling the attention of the profession to its consideration and to the importance of early and persistent treat-

ment. The large number of patients who present themselves at our charitable institutions would, we think, be greatly increased, if people were impressed with the importance of attending to a discharge from the ear, however slight. One has but to attend the clinic of a public hospital to ascertain with what indifference the disease is looked upon. It is to be regretted that so few patients apply for aid during the acute stage. By carefully examining into their history, we find their troubles dating back for months or years. It is not an uncommon occurrence for them to wait for fifteen or twenty years before presenting themselves, and they are only then admonished to do so by the deafness, which is generally beyond help. Thus, in the absence of treatment, the ulcerative process is carried on until the tympanic cavity is affected, and changes are produced by which the hearing is irrecoverably lost. It is rare for the disease to continue many weeks without this state of things being brought about, in a greater or less degree. Although patients do recover sometimes without treatment, there is still a very large number who, deceived by the absence of pain, and the non-appearance of the discharge externally, consider themselves well, even while the disease is progressing. The great relief following the acute symptoms by the appearance of the discharge, leads them to believe that its continuance has a salutary effect, or that its suppression would give rise to a similar affection of some other organ.

It is in the early stage, before the membrana tympani has become seriously diseased, that we obtain most satisfactory results from treatment. The length of this stage varies. It may last for weeks, but such is not its general course. Frequently, before we are aware of it, the ulcerative process has affected the membrana tympani, and although it may not necessarily extend to the tympanum, it will in the majority of cases render the prognosis less favorable. Very small perforations sometimes heal; such cases, however, are exceedingly rare. In almost every instance they go on increasing in size, until the greater part or the whole drum is destroyed. While it continues entire, no matter what the condition of the canal may be, we may hope for a favorable termination. It is the extension of the inflammation to the tympanic cavity we are to guard against, and to prevent this our whole treatment should be directed.

Internal purulent otitis, as is well known, is very tedious, and oftentimes but little benefited by treatment. Not so, however, with the disease under consideration, which in most cases is as successfully treated as the average of diseases; certainly more so than many forms of granular lids, or chronic inflammation of the lachrymal passages. That cases do occur which resist all treatment cannot be denied; but by timely and well-directed efforts much the larger part can be cured. The disease seldom attacks both ears simultaneously, but is afterwards very likely to extend to the other ear.

It is often difficult to trace the disease to any known cause. It is

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frequently seen as one of the sequelæ of scarlatina, rubeola and other acute diseases. Exposure to drafts of air, the violent use of injections, and the use of irritating remedies, give rise to it. It may be produced by diseases of the skin, extending to the canal. Foreign bodies in the passage, although not a frequent cause, is one liable to be overlooked.

It is sometimes so insidious in its onset, particularly in infants, as not to be noticed until attention is drawn to the discharge; but this is not generally the case. It usually commences with well-marked inflammatory symptoms. The patient complains of great heat and a feeling of fulness in the ears, followed by intense pain, which may extend to the whole side of the head and angle of the jaw, and frequently accompanied with delirium and sleeplessness. If we examine the ear, the external auditory canal, as far as seen, will be found tense and shining, and often swollen so much as to prevent an examination by the speculum. The lower part of the canal is much injected, and the membrana tympani, to which the disease has probably extended, is with difficulty distinguished from the surrounding parts, looking much like a granular lid when acutely inflamed. As the disease progresses, the pain, if possible, becomes more intense, and is early accompanied by a throbbing, which in three or four days from the attack is followed by the appearance of a thin, mucous discharge, much to the relief of the patient's suffering. The quantity of the discharge varies; sometimes it is not more than enough to moisten the passage, and again it amounts to several drachms daily. At the commencement of the disease the hearing power is somewhat diminished, the amount of deafness depending upon the severity of the attack. On the subsidence of the acute symptoms, the walls of the canal become less swollen and tender, and in a few days we can, after having cleansed them by the use of the forceps and injections of tepid water, make a thorough examination. We shall now find shreds of desquamated matter, sometimes almost a complete cast of the passage. If the disease has affected the membrana tympani, and is inclined to a favorable termination, this will appear less red, and the line of demarcation between it and the surrounding parts will be apparent. Under favorable circumstances, we shall be able to see the changes which take place. From a deep red it gradually becomes pale, and less swollen. Soon, instead of a uniform redness, we shall see white interspaces, and afterwards the boundary lines of the vessels can be distinctly traced. From this time it is slow in resuming its normal condition. Often the vessels are visible for a long time, particularly at that part where the handle of the malleus is connected with the membrana tympani. The discharge assumes a muco-purulent character, and lasts for several days, or a week or two, when the organ returns to nearly its normal condition. The hearing, however, is apt to be somewhat affected a still longer time. Should the disease not assume a favorable character, the

discharge continues muco-purulent for a variable time, until finally it will be found almost wholly purulent. The denuded walls of the passage and the surface of the membrana tympani continue inflamed, and instead of healing, secrete pus, which, by remaining in the passage, soon decomposes, and becomes a source of constant irritation. This is oftentimes sufficient to keep up the trouble. A knowledge of this fact is of great importance, if we would treat the disease successfully.

Treatment.—During the acute stage, our attention is first drawn to the pain. This can be relieved somewhat by the application of a few leeches in front of and below the meatus. General bleeding is sometimes, although very rarely, indicated. If the patient is of a plethoric habit, he should be restricted to a low diet, and ordered a cathartic. Perfect quiet, in a warm room, will add much to his comfort.

We shall derive the greatest benefit from the application of hot fomentations and poultices. The relief is almost instantaneous, and although their use is strongly objected to by some authors, few patients, after having used them, will allow their discontinuance. They should be changed frequently, and never allowed to become cold. The vapor of warm water, or of water impregnated with aqueous extract of opium, will be found beneficial. In some cases, great relief will be afforded by filling the ear with water as hot as can be borne comfortably. The free use of opiates will be required, and is generally indispensable. Of the different varieties, Dover's powder is perhaps the best.

Cleanliness and Injections.—During the acute stage, and while the ear is swollen and tender, injections of tepid water, if they can be employed without producing pain, should be used sufficiently often to prevent the accumulation of matter. Great gentleness will be required in removing this matter from the bottom of the canal. If the walls should bleed, or if very sensitive, the injections should be deferred, and leeches or other antiphlogistic treatment should be adopted. Injections can generally, however, be administered without pain, if the nurse is instructed to direct the injection against the posterior walls of the passage. If a powerful stream is forced against the membrana tympani, it may be followed by giddiness, or even complete syncope. The danger of rupturing it, although less than in the chronic stage, is sufficiently great to require the utmost care. It should not be left entirely to the attendant, although the necessary tact is soon acquired; as often as possible the physician should attend to it personally, and see that the whole canal is clear. Mild astringents can sometimes be used with advantage. When possible, the patient should rest with the head inclined towards the affected side, which allows the free exit of the discharge. This will not, however, in any case render the injections unnecessary. With the ordinary spring speculum, a thorough examination of the canal is often impos-

sible; but with the cylindrical, and a weak concave mirror, it becomes easy, even while the patient is reclining in bed.

Chronic Stage.—The chief obstacles we meet with in treating the disease at this stage is the great difficulty of applying remedies directly to the affected surface. The dried pus and epithelial debris adhere to the walls of the canal until they are sufficiently loosened by ulceration to be discharged. By this time a second crust is formed, and the ulcerative process is thus kept up indefinitely. In this respect it resembles ciliary blepharitis, which, as is well known, is never cured until remedies are applied directly to the roots of the lashes. In that disease we impress upon the patient the importance of soaking the crusts until they are entirely removed; and then only do we consider the lid ready for treatment. Unfortunately, from the shape of the auditory passage, patients with otitis are prevented from doing this, and it devolves upon the medical attendant, who will generally be able, by persistent efforts, to prevent their formation. We should never be satisfied with a superficial examination. The canal may, when not thoroughly examined, look quite well, yet we shall be very likely to find patches in an active state of ulceration. They are often at the bottom, and sometimes extend to the membrana tympani. Such cases should be closely watched, and may usually be benefited by the application of nitrate of silver, of five to twenty grains to the ounce of water. Care should be taken not to touch the healthy surface. The frequent use of this salt to the whole of the canal when only a small portion is affected, is useless, and, if strong, results in considerable harm.

The same strict attention to cleanliness is required in this stage of the disease, and also the free use of astringents. The mineral are most used, and are perhaps the best, although in some obstinate cases the vegetable are better. Of the former those most in use are, alum, acetate of lead and sulphate of zinc, of variable strength, from two to twenty grains to the ounce of water. Of the vegetable, tannin is most used. Sometimes a decoction of some of the plants containing it will be found to answer well. These remedies may be used with the syringe, several times daily. They should, of course, be previously warmed, as should all applications to the ear. If they are dropped in, it should be after syringing. Without this precaution, they would often be too much diluted to have any perceptible effect. We have used in this stage, with favorable results, the vapor of the tincture of chloride of iron. By the atomizer, this can be effected with facility. It should be used quite weak at first. We have generally commenced the treatment with only a few drops of the iron to an ounce of water. It may afterwards be increased to twenty or thirty drops. A very weak solution of nitrate of silver can sometimes be substituted with advantage. When not acutely inflamed, and the walls of the canal are pale and secrete large quantities of pus, the use of these remedies in the manner described will often-

times be attended with gratifying results. When the passage is in the condition alluded to, this treatment will be found not disagreeable. It may be repeated every second day. If it causes pain it should be discontinued.

The canal ought never to be plugged with cotton. If its use should be considered necessary, it may be put loosely into the external orifice. If pushed well in, it soon becomes soaked with pus, swells, and prevents the exit of the discharge externally. As the pus accumulates, the chamber containing it is distended, and we shall be very likely to have rupture of the membrana tympani, through which the pus may be carried into the throat. It is not an uncommon occurrence for patients to apply to us, who assert that they have not put cotton into their ears since the early stage of their disease, which may have continued for months, and on examination we find the bottom of the canal partly filled with it.

Constitutional remedies are, in many cases, of the greatest importance, particularly in children; yet they may be powerless, unless combined with local treatment. Quinine, cod-liver oil, and the preparations of iron are the ones most indicated. We would not underrate their great value, but we think that if the local treatment should be persisted in with the same zeal as the constitutional, we should derive far better results. Patients are often seen who have been under various kinds of treatment, and have perhaps never had the canal examined. They have relied entirely upon constitutional remedies, with, perhaps, some general directions with regard to cleanliness. This method of procedure is much to be regretted, and accounts, in a measure, for the want of success in a multitude of cases.

Boston, March, 1867.

Reports of Medical Societies.

EXTRACTS FROM THE RECORDS OF THE BOSTON SOCIETY FOR MEDICAL IMPROVEMENT. BY CHARLES D. HOMANS, M.D., SECRETARY.

JAN. 28th.—*Laryngitis supervening on Measles in a Child of eighteen Months; Tracheotomy; Death. Discussion as to the Nature of Laryngitis, with Cases.* Dr. GEORGE HAYWARD reported the following case.

"The patient, a child about eighteen months old, was first seen by me Jan. 17th. Measles had appeared on the 16th, and was quite full; she had some cough and fever, but did not appear to be worse than children often are at that stage of the disorder. On the 18th, I was sent for to see her, as it was thought she had the croup. Found her breathing with a hoarse, stridulous sound, a good deal like that of croup, but perhaps rather shriller; the color was natural; the loud and shrill sound of the breathing masked the respiration somewhat,