

no attempt has been made to separate the various forms of the latter, described as *P. nummularis*, *P. circinata* (lepra), *P. gyrata*, &c., as these are but stages of one and the same disease. There were very numerous illustrations, not only of its tendency to recurrence, but likewise of its markedly hereditary character; and no corroboration was afforded of the view promulgated by Wilson, that psoriasis is remotely transmitted syphilis. One case, however, was observed in which psoriasis occurred in a lad with pallid complexion, prominent brow, sunken nose, notched teeth, and other typical symptoms of hereditary syphilis; but it is more than probable that this was a mere coincidence, else, among upwards of 800 cases of psoriasis, such illustrations would probably have been met with more frequently. The local treatment of psoriasis consisted in the use of soothing ointments and lotions in the acute stage; in the chronic, in the use of mercurial ointments. If there was much irritation of the skin, various kinds of tarry ointments and the liquor carbonis detergens were used, while in very obstinate cases, which resisted every other kind of treatment, under-dresses of vulcanised india-rubber were sometimes used with excellent effect. The constitutional treatment was, as a rule, most relied upon, especially tonic aperients and alkalies in acute cases; and arsenic, carbonate of ammonia, carbolic acid, and tar (especially coal-tar) in the chronic. It has been well remarked that the subjects of this complaint are usually remarkable for their healthy appearance; but, notwithstanding, an inquiry into the family history often elicits a hereditary tendency to phthisis, and in a few cases the patients themselves gave evidence of the presence of strumous disease; in these cod-liver oil, steel, and such-like remedies, yielded good results.

Under the head of *acne vulgaris*, by which is meant inflammation occurring around the orifices of the sebaceous glands as the result of the accumulation in them of hardened and therefore irritating sebaceous matter which appears on the surface as little black specks, 342 cases were registered, 288 of which occurred amongst the hospital patients, and 54 amongst the private ones. This disease most frequently made its appearance about the period of puberty, and in females often became aggravated at the menstrual periods. It is a most obstinate affection, and little impression was made upon it by constitutional treatment, even arsenic being generally unavailing. The local treatment usually consisted in squeezing the little hardened masses of sebaceous matter (comedones, as they are termed) out of the glands, the lancing of pustules and tubercles, and the use of local stimulants, such as lotions of perchloride of mercury and sulphur. A very elegant formula for the latter was recommended to me by Dr. Bulkley, of New York, and which is as follows:—Sulphate of zinc and sulphuret of potash, of each one drachm; rose-water, four ounces: shake the bottle; cover the affected parts with pieces of lint dipped in the lotion, which are to be removed when the lint is dry. To be used night and morning.

The disease marked *rosacea* in the classified list is usually spoken of as *acne rosacea*, owing to its being frequently associated with an eruption resembling the spots of acne; but the typical disease is a distinct affection. The first stage in the morbid process consists in dilatation of the capillary bloodvessels, which is followed by congestion and inflammation of the skin, and, if the disease is not arrested, in the new formation of cellular tissue, so that ultimately tubercles, and even tumours, are developed. It was much more frequently met with amongst the private than amongst the hospital cases, probably on account of the greater annoyance which the disfigurement gave rise to in the former, 21 cases having occurred amongst the 1000 private, and only 37 amongst the 10,000 hospital patients. It was often the result of intemperance, especially in the male sex, but much more frequently of debility; hence the constitutional treatment, which proved so comparatively useless in *acne vulgaris*, was the *sine qua non* in *rosacea*. Stimulating local applications were likewise of the greatest service, such as the rumex ointment mixed with sulphur in the proportion of one to two drachms to the ounce. The following is the formula for the preparation of the rumex ointment:—Rumex root, nine ounces; lard, six ounces; yellow wax, one ounce; water, sufficient quantity. Wash and bruise the roots; boil for two hours and strain; evaporate to four ounces; add gradually to the wax and lard previously melted, and keep stirring until cold.

Of the three diseases which alone are capable of implicating the whole body, pemphigus, pityriasis rubra, and lichen ruber, the first was most frequently observed, 16 cases having been met with, one of which was an instance of that rare form described as pemphigus foliaceus. The other two complaints occurred seven times and once respectively. From this it appears that the true lichen ruber, as pictured by Hebra, is a much rarer complaint in this country than in Austria, although the milder forms, described by Wilson under the name of lichen planus, and hitherto classed under the head of lichen, are by no means uncommon. The case of lichen ruber above referred to occurred in a farmer, about sixty years of age, who consulted me twice in August, 1868. The disease had then existed for three years, and implicated the entire cutaneous envelope. At that time he was treated, with slight improvement, by means of tar capsules, and a lotion of liquor carbonis detergens. I saw him again twice in consultation with Dr. Skene, of Helensburgh, in April and May, 1870. The skin then appeared to be in the same state as when I saw him first, but he was thinner, and complained much of debility. Small doses of iron and arsenic were prescribed, and an under-dress of vulcanised india-rubber was recommended to be worn. I have not seen him since, but I understand that he is still alive, though gradually losing ground.

(To be continued.)

POLYPUS OF THE EAR.

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FROM a tumour of considerable size, which occupies the whole of the external auditory meatus and projects for some distance from the external orifice, to a growth no larger than a small seed, and which can only by careful examination with reflected light be discovered lying within the tympanum behind a perforation of the tympanic membrane, polypi of the ear present every variety of form and shape. It will generally be found that they have been preceded by disease of the middle ear, which has resulted in a perforation of the tympanic membrane, purulent catarrh with scarlet fever being the commonest of all forms. The immediately exciting cause of the growth seems to be the purulent discharge which attends this condition. The only variations to this course of events are the very exceptional cases in which they have been discovered after death as a commencing growth in the cavity of the tympanum with the membrane entire, and the perhaps hardly more frequent occasions where they appear in the external auditory meatus independently of any previous tympanic disease.

No purpose is served by an artificial classification of these polypi. In structure they are all fibro-cellular, and have the appearance of fibrous tissue at different stages of development, the fibrous element predominating at one time and the cellular at another; the proportion which either element bears to the other appearing to depend on the age of the tumours rather than on their relative denseness or size, or even on the part of the ear from which they arise.

Dr. Whipple, curator of the museum at St. George's Hospital, has on various occasions made sections of polypi which I have removed, and reported on them. I here give two examples.

No. 1 was a polypus arising from the roof of the tympanic cavity, projecting into the meatus, and had been, as far as I could judge from the history, of about twelve months' growth. "A fibro-cellular growth, resembling the early form of fibrous tissue. Delicate fibrillated stroma, the fibrillæ having a tendency to arrange themselves in parallel lines. In some parts the stroma is finely granular; cells not very numerous—some round, some oval in shape, beginning to become elongated. Here and there in the section were scattered oil-globules."

No. 2 was a small polypus of recent origin, arising from the meatus; probably of two or three months' growth. "Numerous small nuclei, scattered without much definite arrangement in a fibrous stroma of scarcely so delicate

structure as in the former case; here and there cells of considerable size, many distinctly elongated where the fibrous tissue is more advanced."

They are at times very vascular, and when they are so there is a good deal of bleeding after their removal. When they do not attain any considerable size, a very common appearance for them to present is a red, fleshy, globular mass projecting through a perforation in the membrane. In such a case they grow from the cavity of the tympanum, and from their situation, by preventing the escape of discharge, sometimes thus become the indirect cause of death in those fatal cases where the lateral sinus and brain become involved.

The reasons for which their removal generally is demanded are the continuous offensive discharge from the ear and deafness, both of which symptoms are their invariable accompaniments. The most usual position from which aural polypi arise is some part of the walls or roof of the tympanum; they also spring from the external meatus and from the tympanic membrane itself. After one polypus has been removed from the cavity of the tympanum, it not unfrequently happens that one or even two more are brought into view. In looking down a speculum where the membrane has been completely destroyed it is not always easy to decide at first sight whether the red mass at the bottom of the meatus is a small polypus or simply granulations on the lining membrane of tympanum. This, however, is ascertained by examination with a probe, when a polypus will be found to move under the touch. Indeed, this should always be practised so as to determine, as nearly as possible, the point from which the growth arises.

The indications for treatment of aural polypi are threefold. Firstly, to remove them; secondly, to apply caustics to their root regularly and for a sufficiently long time, to ensure against their reproduction; and, thirdly, when they exist with a perforation, to keep the tympanum clear of secretion, and to induce a more healthy condition of the lining membrane of this cavity and the Eustachian tube; in short, in addition to directing attention to the polypus, the case must be treated as an ordinary perforation of the tympanic membrane.

It is most desirable that the tediousness of these cases should be recognised. Although, after removal, a few applications of some caustic will occasionally eradicate them, and this especially when they arise from the external meatus, the treatment will often extend over several weeks, or even months; the time occupied depending upon the tendency to reproduction which the growth manifests.

Judging from the cases which present themselves where polypi were taken away some years ago and have recurred, only to be again taken away and again to reappear, my conviction is that until late years the perseverance necessary for the successful termination of this class of cases was but imperfectly estimated.

With regard to removing the polypus. If it be very large, the best instrument is a Wilde's snare armed with fine gimp. If of moderate size or small, simple rectangular forceps, meeting at the points by two rings, are the most convenient. The lever ring forceps of Toynbee are not often necessary, and at the best will only grasp a very small growth. While using any kind, or in applying caustics, the meatus should be illuminated with diffused daylight through the largest speculum that it will hold, the reflector being worn on the forehead and fastened with a band round the head; both hands will thus be quite free. The most effective caustic I find to be chloro-acetic acid, applied on a very small camels'-hair brush. In using this, care should be taken not to touch the meatus; and provided this is done, very little pain is felt; but if this should happen, it is relieved at once by syringing with warm water. Potassa fusa and chloride of zinc are not so manageable, and the former is liable to spread on to more parts than it is necessary should be touched. Nitrate of silver is not sufficiently powerful, but it is a very useful caustic to apply to granulations on the membrane or on the surface of the cavity of the tympanum. The liquor plumbi is useful for the same purpose, and may be applied with a camels'-hair brush, or in the form of a piece of cotton-wool soaked in it and worn for a few hours every day pressed on to the part. It is well, before any of these applications, to dry the part carefully with cotton-wool.

A plan of cleansing the middle ear of secretion and ap-

plying solutions to the whole extent of the lining membrane in cases of perforation, by forcing them through the tympanum and Eustachian tube by means of a syringe with the nozzle guarded by india-rubber, and fitting the external meatus, was described by me in THE LANCET in April and August, 1870; and in all cases where there is a perforation of the membrane and a pervious Eustachian tube, it is most useful. The patient may also be instructed to practise a plan which I first saw Dr. Joseph Gruber at Vienna teach at his clinique to patients with perforations—viz., to incline the head to the affected side; and, after a drachm or so of the lotion to be used has been passed into the inferior nasal meatus of the same side with a small glass syringe, to close the nostrils firmly with the fingers, and the mouth also being closed, to blow vigorously, when the fluid will run through the Eustachian tube, and out of the perforation; thus cleansing the lining membrane in its course. When neither of these plans succeed—and occasionally they fail on account of some temporary obstruction,—the Eustachian catheter may be employed with an india-rubber bag fitting into its open end; and thus fluids may be made to pass directly through the Eustachian tube into the tympanum, and through the perforation. Speaking generally, however, I should like to be understood to imply that no pains should be spared to keep the cavity of the tympanum thoroughly cleansed; and, in case of an adult, no trouble which has this in view should be grudged by the patient. He should be provided with a syringe which he can use without fear of hurting himself, and with this he should wash the ear twice a day. Lotions (a very good one is sulphate of zinc and solution of opium, four grains and ten minims respectively to the ounce) should be used in the following way:—The meatus is filled with the lotion, previously warmed, and with the affected side uppermost and horizontal, let the patient blow through the perforation; this will cause the fluid to bubble in the meatus, and, on ceasing to blow, some little of it will pass into the throat, and thus it will come in contact with all parts of the lining membrane of the middle ear. Observation teaches me to be more hopeful as to the results of treatment in cases of perforation when they are accompanied by polypi than when they are not. I cannot in any way account for this, any more than I am able to do—judging simply by appearances as regards size, shape, &c.—for the immense variations in improvements to hearing that are met with after treatment in all cases of perforation. When the lining membrane of the tympana and Eustachian tubes becomes more healthy, the improvements that take place, with regard to the hearing power, are with some very great indeed, while with others they are scarcely perceptible. With these latter a careful examination with the tuning-fork, the history, and some subjective symptoms—tinnitus, worse hearing after fatigue, &c.—will frequently detect a nervous lesion accompanying the tympanic disease.

In the following very short abstract of seven cases it was not found necessary in any to use either form of artificial tympanic membrane—viz., Toynbee's, or the preferable one of cotton wool. They are chosen from my notes because, from the fact of the treatment extending over a very long period with some compared with others, the time and trouble which are sometimes demanded in order to treat an aural polypus with lasting success are shown.

The method of examination now universally employed is diffused daylight reflected from a concave mirror down a tubular speculum; and in passing air into the tympana, or through them in case of a perforation, Politzer's plan, of sending a stream of air through the inferior meatus of the nose during the act of swallowing, is the simplest, the Eustachian catheter being only occasionally required.

CASE 1.—June 22nd, 1870. G. P—, a boy aged sixteen. Discharge from right ear from infancy. Watch heard at three inches from the ear, and very deaf to conversation. The natural position of the membrane occupied by a polypus. This was removed with forceps, and he attended three times a week till July 25th, and three times between then and August 14th, when he was dismissed, the discharge having ceased, and the hearing for conversation being very good. The membrane on the other side was perforated; but, although the discharge from the ear ceased, the hearing improved very little from treatment.

CASE 2.—July 20th, 1870. J. G—, aged twenty-two. Discharge from right ear after measles in childhood.

Watch heard at two inches from the ear. A fleshy-looking polypus filled up the meatus. It was removed, and he was under treatment till August 17th, when a second small polypus appeared within the tympanum. This was taken away, and he attended once a week till Sept. 29th, the discharge having ceased, and the watch being heard at eight feet, and conversation very well. In this case, too, the membrane on the other side was perforated, but the hearing did not improve under treatment.

CASE 3.—April 19th, 1870. C. F. P.—, male, aged eighteen. Discharge from right ear from a child. A large polypus projecting from the external meatus. Watch not heard on contact. He attended, after the polypus was removed, three times a week till May 10th; after then, sometimes once and at others twice a week till June 27th; from that date, occasionally at intervals of five or six weeks for six months. The perforation was very small, and the cavity of the tympanum became filled with discharge and made him deaf for the time; this caused the case to be so tedious. When dismissed he could hear conversation very well.

CASE 4.—M. M.—, female, aged twenty-two. After scarlet fever. A perforation, and a polypus filling the meatus on the right side. Watch not heard on contact. Polypus removed. She attended once a week for fourteen weeks, when she was dismissed, the discharge having ceased. Although she heard the watch at five feet, the improvement for conversation was not proportionately increased.

CASE 5.—W. H.—, male, aged nineteen. A perforation and polypus after five years of discharge from the right ear. Watch heard on close contact. Attended twice a week for two months, and was dismissed, the discharge having ceased, and hearing increased to six feet with the watch, and conversation very well.

When a polypus grows from the meatus without a perforation of the membrane (a rare state of things), it is just as easy to prevent its regrowth as it is difficult when it arises from the tympanic cavity with a perforation. This occurred in

CASE 6, where Mr. T.—, aged twenty-six, who could hear well four weeks before I saw him, could then only hear a watch at one inch from the ear, and had a polypus growing from the meatus, and blocking up the orifice. The polypus was removed, and showed no disposition to grow again, the temporary deafness being only due to closure of the meatus. In ten days no traces of it were to be seen. The membrane was quite healthy.

CASE 7.—E. L.—, aged twenty-six. After catarrh of the tympanum without a perforation of the membrane. In this example a small polypus could be seen in close apposition to the membrane, and arising from the meatus. This was taken away. Caustic applied five times, and the growth was quite eradicated. The hearing, however, did not improve, the deafness depending on the condition of the cavity of the tympanum remaining after the catarrh.

Grosvenor-street, November, 1871.

THE DANGER OF ILL-CONSTRUCTED AND NEGLECTED CISTERNS.

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SEVERAL years ago I directed attention to the special dangers of ill-constructed and neglected cisterns, such as are met with in many of the houses in Brighton and other towns and villages throughout the country. Recent researches on the causes of epidemic diseases render this subject more important than ever, from a sanitary point of view.* But, as a rule, the cisterns in our dwellings are

* As far as regards the subject of this paper it matters not whether we accept the "germ" or "vital" theory of Pasteur, or prefer the physico-chemical doctrines of Liebig; whether we believe that diseases are always caused and propagated by the presence and self-multiplication of living units, or that they are sometimes also solely due to chemico-physical agencies. But, in its bearings on the practice of medicine and surgery, this is perhaps the most important question of the day, and the one which is being most keenly investigated and discussed.—Vide Professor Lister's Monographs on Antiseptic Surgery, and especially his Address at the meeting of the British Medical Association in 1871; Professor Tyndall's

as ill-constructed and neglected as formerly; and, in newly-built houses, the faults appear to be just as bad—doubtless from ignorance, which in sanitary matters is more dangerous than wickedness.

In a house of small or moderate size there is usually only one cistern, from which water is drawn for drinking, cooking, and supplying the closets. The pipe which supplies a watercloset is often made to open by a tap at the end furthest from the cistern; but in many instances it will be found that water is admitted into the pipe by a plug or valve raised by means of a wire. This is much the more objectionable plan: for, in the interval between the times of use, the pipe, not being occupied by water, becomes filled with foul air which has ascended from the closet; and, when the plug or valve within the cistern is raised, water does not flow down the pipe till this stagnant air has bubbled up through the contents of the cistern. By either method there is risk of contamination of the water; and it seems unnecessary to insist that by the latter the pollution must be serious.

In large houses, having two, three, or more cisterns, sanitary arrangements are equally overlooked; and the cistern on the kitchen-floor, from which water is drawn for cooking and drinking purposes, too often supplies the servants' watercloset. The only way of accounting for the perpetuation of such mischievous arrangements is by supposing that as yet public attention has not been sufficiently directed to the importance of keeping water pure, and that the temptation to save a few feet of leaden pipe is too strong for builders, who are incredulous of the risks incurred. It cannot be too strongly urged that in every house not supplied by "constant service" there should be one cistern specially set aside for the water to be used for drinking and cooking purposes. And with regard to its regulation three other points are to be carefully observed:—

(1) The waste-pipe must not in any way communicate with the drains, else it may be the means of admitting foul air into the cistern, if not also into the house. Yet it will be found that at the present day builders often follow the dangerous practice of connecting the water-pipe with the soil-pipe or sewer, to which it acts as a ventilating shaft, so that the water in the cistern freely absorbs the sewer emanations and becomes polluted.

(2) There must be a well-fitting cover, in order to protect the surface of the water from the organic and inorganic particles which are constantly floating in the atmosphere, more especially in that of the basement story.

(3) At regular intervals the water must be entirely drawn off, so that the interior of the cistern may be thoroughly cleansed. In the case of a leaden cistern care must be taken to wash and cleanse the interior without scrubbing or scratching the surface of the metal. The most frequent cause of lead-poisoning is the use of water kept in leaden cisterns;* but when water acts chemically on lead, the surface of the metal soon acquires a closely adhering hard

Fragments of Science, article "Dust and Disease," 1871; Lectures on the Principles and Practice of Physic, by Sir Thomas Watson, Bart., M.D., F.R.S., vol. ii., pp. 583-601, 5th edit., 1871; Epidemic and Specific Contagious Diseases—Considerations as to their Nature and Mode of Origin, by H. C. Bastian, M.D., F.R.S.

While the present paper is passing through the press, Sir Thomas Watson has written a letter to the *Pall Mall Gazette*, in reference to the illness of the Prince of Wales, in which the question of the genesis of enteric fever is thus clearly stated:—"Many believe that the poison which, issuing from sewers and cesspools, produces enteric fever, is capable of being generated *de novo* by the decomposition of faecal and other impurities, and that the poison of typhus fever may be, and is sometimes, created by the mere crowding together of human beings, especially when these are badly fed and live in close, filthy, and ill-ventilated places. On the other hand, many—of whom I am one—have convinced themselves that sewer gases never cause enteric fever except when they are impregnated with a specific poison, which has been thrown off from the body of some person sick of the same disease; and that when typhus fever makes its appearance in the crowded dwellings of the poor, it is always because there was present in the otherwise foul and depressing atmosphere of those dwellings some leaven of contagium similarly derived from a subject or subjects of that disorder. In short, that these two specific fevers resemble small-pox, scarlet fever, measles, and the other diseases belonging to the same family, in this as in other particulars, that they never arise, nowadays, *de novo*, and independently of pre-existing contagion. Of all of them it is alike true that the source of the infection may often elude the most diligent search for it."

* Cases like those which occurred at Clarendon among the members of the household of the ex-Royal Family of France are not rare. The effects were due to the use of water which had become impregnated by lead in the proportion of one grain to the imperial gallon. The children of the family did not suffer; but thirteen out of thirty-eight persons were affected to such a degree that the nails acquired a bluish discoloration. The children of the family did not suffer. (Vide Dublin Quarterly Journal, May, 1849 also Medical Gazette, vol. xlv., p. 260.)