CASE 16. *Reappearance of a cyst six years after its disappearance; cure of cyst by incision; local application of iodine solution and plugging.*—A single woman aged thirty-nine years came to me in 1892 with a tumour in her breast which was believed to be carcinomatous. It had been steadily enlarging for two years, but as it occupied the same position as a "lump" which had existed in the breast six years previously, and had, after some months' treatment, disappeared, it was natural for the patient to hope that the same result would again occur. When I saw her the tumour was the size of a large egg, very hard, and deeply situated and elastic, if not fluctuant, with the patient placed in the horizontal posture. I explored the tumour, and finding it to be a cyst sponged it out with a solution of iodine, plugged it, and let it heal by granulation. This patient was well three years later.

CASE 17. *Cyst in the breast followed by its disappearance, and reappearance thirty years later with intracystic growths; operation refused.*—A married woman aged sixty-three years consulted me for a tumour which had been gradually growing for two years in one of her breasts and was then the size of a large egg. The skin over the tumour was somewhat fixed to it and slightly red. The nipple was retracted, but this had always been the case. In the course of three weeks the tumour burst, and a week later a sprouting growth projected from its interior which looked sarcomatous. The patient refused operation. It seemed that in this case thirty years before a lump had existed in the position of the present tumour, and under six months' treatment disappeared to reappear many years later in the form described.

I would here draw attention to the fact that only three of the last sixteen cases which I have quoted occurred in women under forty years of age, that seven were found in women between forty and fifty years of age, and six in women over fifty, two of these being sixty-three years of age. It is tolerably clear, therefore, from these facts that no argument can be drawn from age as to the probabilities of a tumour being cystic or otherwise, for such cysts appear in women during what is usually regarded as the cancerous period of life.

GROUP III.

The third group of difficult cases now claims attention, and in it will be included cases in which the breast gland appears to be either generally or in one or more of its lobes harder than natural, coarse, or knotty, the knots varying in size from small to large peas or nuts. In some of these cases, but not in all, there will be a discharge from the nipple of either a clear or blood-stained fluid, or some pultaceous, cheesy material, and this may be increased in a majority of instances by pressure on the gland. Occasionally this affection is complicated with some enlargement of the axillary lymphatic glands. These cases are mostly found in women who have passed the period of, or who have long given up, child-bearing, and the condition is in a measure physiological, for it is one of involution of the gland associated with some cystic degeneration of the ducts and acini. In a general way it is not to be regarded with apprehension, although in exceptional instances the condition lights up and becomes pathological by some of the cysts enlarging and forming tumours of either a simple cystic nature or becoming the seat of intracystic growths, papillomatous, sarcomatous, or carcinomatous. Such cases as these ought to be watched, for in all of them there is a spurious activity in the gland tissue, and if there happens to exist any special tendency in their owners to develop a new growth of any kind this spurious activity may show itself in some pathological direction. In the bulk of cases soothing applications are of the most value. In others that retain their activity excision is to be advised. In connexion with this group of cases Case 12, as reported, may be read again with advantage with the following examples.

CASE 18. *Cystic disease of the breast with intra-cystic growths; excision of the gland; recovery.*—A married woman aged forty years, the mother of two children, both of whom she suckled, consulted me for a tumour the size of an egg which had been slowly growing for nine months. There was no discharge from the nipple. The whole gland was coarse and knotty, and the tumour was situated in the axillary half. I regarded it as one of cystic disease from its elasticity, and it was believed that the whole gland was more or less involved. I cut into the tumour and found it to be a cyst containing papillomatous growths, and made out that the whole

gland was similarly affected. I consequently excised the gland and a good recovery ensued.

CASE 19. *Cystic disease of the breast, with intra-cystic papillomatous growths; excision of gland.*—A married woman aged sixty years consulted me in 1888 for a tumour the size of an egg, occupying the axillary half of the left breast, which had been growing for about six months. It was elongated in shape, hard, and elastic, and I regarded it as a cyst, but the whole gland felt coarse and knotty. At times there had been some discharge from the nipple, which was blood-stained. Later I explored the growth and found it to be of a cystic nature, with intra-cystic growths, which Mr. J. H. Targett, the pathologist of the Royal College of Surgeons of England, described as not containing any definite malignant tissue. The larger tubes of the breast were in all stages of dilatation, and in some of these tubes the same growths were present. A good recovery followed. This patient was well six years subsequently.

CASE 20. *Cystic disease of the breast with retracted nipple simulating carcinoma; removal of gland.*—A married woman aged fifty-three years, the mother of ten children, consulted me in August, 1895, for a tumour in her right breast which had been growing for nine months, although her husband maintained that a lump the size of a nut had existed near the nipple for at least twenty years. She had had with her first child an abscess in the breast, which was opened in the axillary lobe. The nipple had been retracting for six months. When the patient was seen it was quite inverted. The breast was lumpy beneath the nipple as if from cysts; its axillary lobe was also thick. No large glands were in the axilla. On exploration being undertaken on Aug. 10th the tumour was found to be cystic. The cysts were full of thick cream-like paste. Excision was performed and a rapid cure followed. Mr. Targett reported to me on the specimen as follows: "The breast shows a number of small retention cysts besides the one which you incised. Some of them are quite close to the nipple, and they all contain the same honey-like material. Indeed, in handling the specimen before making any cut I expressed a quantity of this material from the nipple. On section it was seen that this came from dilated ducts, particularly those ampullæ below the nipple. The breast tissue itself, where hard, is due to the presence of these small tense cysts."

In these three groups of cases to which attention has been drawn I believe the surgeon will be able to find a place for most, if not all, the doubtful and difficult cases which he must meet with; and if he will carry to the bedside as a rule of practice the thoughts and methods of investigation to which I have directed attention, I feel sure that his difficulties, which have been my difficulties, will be found to lessen, if not to disappear. At any rate, of this I am fairly sure, that he will be able in most cases to form a working diagnosis upon which he will be justified in deciding upon and carrying out a line of treatment which must conduce to his patient's advantage and to his own credit.

THE TREATMENT OF SEVERE MASTOID DISEASE BY IMPLANTATION OF SKIN FLAPS.

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THERE are few cases which are more troublesome to manage in practice than those of inveterate disease of the mastoid bone. There can be no doubt that many instances of bad mastoid necrosis are tuberculous, and in the last few years much has been written and said about their treatment. Among those who have especially increased our knowledge regarding the radical treatment of extensive mastoid necrosis Professor McEwen of Glasgow takes the leading part, and I may at once state that the idea of implanting flaps of skin into the cavities left after removal of the diseased portions was derived from his expression "papering the cavities with skin," and partly from observing the remarkable manner in which the integument grows down over and fills up carious cavities in the long bones after sequestra are removed. In each of the following three cases it will be observed—(1) that they were instances of chronic and inveterate disease; (2) that operations had previously been performed

for their relief which were ineffectual; and (3) that after the operation now to be described such great improvement took place that it approached as near to definite cure as could from the nature of things be expected. The details of the procedure, briefly stated, are as follows. The mastoid region being rigorously cleaned and purified, a flap of integument, thick and fleshy, is raised from behind the auricle. The flap should include the orifice of any sinus (s) and be left attached by its stalk (A). The auricle is detached forwards and the soft parts over the mastoid are turned backwards by horizontal incisions B and C. The diagram, kindly drawn by Mr. Ward, makes this clear. The lining membrane of the canal is separated from the bone. A trephine of half an inch diameter is applied immediately behind the canal, or if a sinus exists this is enlarged with gouge and mallet. The diseased bone is very freely removed and all caseating material scraped away. Any overhanging edges are removed with a chisel. Finally, the posterior wall of the bony canal, which separates it from the cavity just made, must be cut away with bone forceps. Any granulations are curetted from the tympanum, and it should be the aim of the operator to convert the tympanum and mastoid cavity into a common

chasm. Pure carbolic acid is next applied upon a small mop to any suspicious-looking bone. As regards the removal of osseous tissue, in the first two cases I used chisels and gouges, and in the last a strong burr which cut away the bone with remarkable ease. In the last two cases the mastoid was of the "pneumatic" variety, and consequently a large cavity containing caseating material and carious bone was readily reached and evacuated. In the first case the whole bone was sclerosed, and the operation far more difficult. The flap of skin is pressed down into the cavity and packed superficially with iodoform gauze. In my first two cases I united the margins of the tunnel over the implanted flap, leaving merely an aperture for the gauze to be withdrawn and the pedicle of the flap to emerge. In the last case I left the tunnel entirely open, and I believe that the latter plan is far the best. The discharge can be readily washed away and there is no chance for its reaccumulation. Condensed notes of the cases are now related.

CASE 1.—A youth aged nineteen years came under my care on Jan. 25th, 1895. He gave the familiar history. "All his life" he had suffered from profuse discharge from the left ear, with pain and headache, general discomfort, and chronic misery. Five years ago he underwent a prolonged course of treatment at the hands of several aural surgeons, but with no material benefit. Two years ago he bathed in the sea, and this was followed by severe headache, sickness, and other dangerous symptoms. Ten months ago he had a similar attack after simple syringing, and this was associated with "abscess behind the ear." The patient looked ill and worn; he was stone-deaf, even to the tuning fork, and the whole drum was destroyed, the inner wall of the tympanum being

bare and covered by granulations. There was a profuse foetid discharge, and ill-defined tenderness over the mastoid was elicited on deep pressure. Some ordinary treatment was adopted for a time, but on July 9th he was so ill with severe pain in the head, giddiness, and sickness that it became obvious something must be done for his relief. His temperature, taken on several occasions, was over 102° F. On July 15th the operation was performed. Dr. Hewitt administered ether; Mr. Ward assisted. A tongue-shaped flap was raised from behind the auricle, and the ear, with the lining membrane of the canal, turned forwards. The soft parts over the mastoid were pulled backwards. Pressure forceps were applied to large bleeding vessels in the scalp. The bone was now cut away with a mallet and strong chisels. It was of ivory hardness and broke the edges of several instruments during the performance of the operation. The mastoid was removed to the depth of half an inch, but no distinct antrum was reached. The bone was softer, however, and infiltrated with purulent material. The posterior wall of the canal was cut away and the tympanum curetted thoroughly. Pure carbolic acid was applied, and when the oozing had ceased the tongue-shaped

flap was laid down and packed *in situ* by strips of iodoform gauze introduced through the canal. The incisions behind the ear were united with horsehair. To economise valuable space I will only state that the after-progress of the case was quite satisfactory. Rapid healing occurred, with great diminution of pain and fever. For some weeks after operation the parts were well syringed daily, and gradually the discharge lessened until when the patient left England it had nearly ceased. I last saw him on Sept. 11th. He was remarkably well and cheerful. The parts behind the ear had healed. The raw tympanic surface was almost covered with integument, but an area the size of a split shot was still bare and discharging. Complete cure had not been produced, but the improvement and diminution of discharge were very gratifying and enabled the patient to easily keep the ear clean and comfortable.

CASE 2.—A wan, emaciated little girl aged seven years was admitted into St. George's Hospital on Aug. 14th, 1895. She came under my care in the absence of Mr. Haward. The child had been an in-patient previously in May and the mastoid had been then operated upon, but since she left sinuses had continued to discharge persistently. There was a history on readmission of persistent otorrhoea in infancy. The child looked remarkably pale and weak. There was a sinus discharging pus behind the auricle, and burrowing of pus under the soft tissues round it. There was but little discharge from the meatus. On Aug. 31st, the parts being shaved and cleansed, the following operation was performed. A long, tongue-shaped flap of skin was raised from behind the ear, the diseased mastoid was then exposed, the sinuses enlarged with the gouge, and the mastoid antrum freely opened and cleared out. Pure carbolic acid was applied. The bleeding being checked, the flap of skin was laid into the cavity and pressed down deeply; the margins of the incisions were united by horsehair so that the flap was covered over, its pedicle emerging superiorly. The child remained in the hospital until Oct. 12th, the wounds being carefully dressed. By this time the parts had soundly healed and the child had much improved. This patient was last seen on Nov. 30th. The mastoid region remained perfectly sound. There was occasional slight serous discharge, easily kept down by daily syringing, and the inner wall of the tympanum was exposed, bare and dry. No integument could be seen in this situation. The child had improved in strength and appearance to a remarkable degree, and there was every indication of healing being sound and permanent.

CASE 3.—This was a case of old mastoid disease operated on by skin implantation, great improvement taking place. A pale, emaciated young man aged twenty years was admitted into St. George's Hospital on Nov. 7th, 1895, and, as he had previously been under my care, was kindly transferred to me by Mr. Bennett. His previous history was, briefly, as follows. For ten years he had suffered from attacks of

severe pain in the mastoid and twice had "operation performed." Perforative otorrhoea had existed in the left side as long as he could remember. In 1894 the mastoid antrum was freely opened and curetted, which gave temporary relief to pain, but a sinus had existed ever since. All hearing was absent, even through the bones, and the tympanic membrane was quite destroyed. He had attended the aural departments of various hospitals and had undergone three operations. This patient came of a tuberculous stock and had twice suffered from hæmoptysis. On admission on Nov. 7th he had the familiar symptoms of mastoid disease—severe pain, fever, and the auricle pushed away from the head by a heavy, red, and exquisitely tender swelling. On Nov. 11th the operation above described was performed. The bone was very freely removed, and a large cavity was exposed full of "cheesy" detritus. With sharp spoons and a burr the walls of this were removed, and the posterior wall of the canal was cut away with pliers, so that there was free communication between the tympanic cavity and the mastoid cavity. The dura mater was exposed at one spot. Hæmorrhage was very free, and hot syringing was constantly employed. A large tongue-shaped flap was laid down into the cavity and packed over with iodoform gauze. There was no attempt made to unite the margins of the incisions. This patient was discharged on Dec. 30th. His recovery was progressive and uneventful. The treatment adopted was merely strict cleanliness, and the raw surface left by raising the implanted flap was covered by grafts of skin on two occasions. His present condition (Jan. 22nd, 1896) is as follows:—The mastoid region has soundly healed and he has lost all pain and discomfort. His general health and condition have greatly improved. There is no discharge from the canal, and integument can be seen through the speculum as though the inner wall of the tympanum were going to be covered.

I must confess that in these three cases it was a disappointment to me that slight discharge from the meatus was still present or to be expected from the canal. It was serous, however, and free from odour, and readily controlled by the use of the syringe. In all cases of severe middle-ear disease I have always suspected that foci of caries may exist in the inner wall or roof of the tympanum, and the danger of using cutting instruments in these localities makes the problem of certain eradication of all disease a very difficult one to solve. I feel certain, however, that the method of forming a large gap behind the ear and pressing a skin flap down into it is a very valuable one and well worthy of attention in these desperate cases.

Cavendish-place, W.

SOME OF THE RECENT RESULTS OF ORCHOTOMY FOR ENLARGED PROSTATE.¹

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I HAVE ventured to bring the subject of the treatment of enlargement of the prostate by castration, or, as I prefer to call it, by orchotomy, before this society, because, although it is now nearly three years since the operation was first performed with this object by Ramm of Christiania, and a large number of cases have been recorded in England and elsewhere, it has not been received with any marked degree of favour. This may be accounted for in part by the fact that it is an altogether new departure in surgery, and in part by the existence of a prejudice against it that cannot be regarded as unnatural. For there can be no question either of the severity of the sufferings of many of those who in their later years are the subjects of this enlargement or of the inadequate results of the ordinary methods of treatment. It is perfectly true that many old men escape altogether, and that many more lead an existence of more or less comfort by passing catheters at regular intervals and washing out the bladder; but it is equally true that there is no inconsiderable number of men, in all other respects, perhaps, perfectly healthy, whose lives are rendered one prolonged torture, and who at last are killed partly by the inflammation

of the kidney that so often complicates these cases and partly by septic absorption from the walls of an inflamed and ulcerating bladder. That such cases do exist, and exist in considerable numbers, although the proportion that they bear to the total may not be very high, and that they exist in spite of every care that is taken in the selection and use of catheters, is notorious to everyone. And that they always will exist, so long as catheterisation is looked upon as the routine method of treatment for all cases alike cannot be denied. Some men are able to make use of catheters for years, taking absolutely no precautions, without ever getting cystitis. Others begin well, and for a time enjoy a certain degree of comfort. Then in a little while the muscular power of the bladder begins to fail; the residual urine increases in amount; organisms which abound in the urethra are carried in by the catheter; cystitis sets in, and the urine becomes ammoniacal. Perhaps by dint of great care and at the cost of a serious illness this is overcome and the inflammation checked; but even after the first attack the bladder never quite recovers. Permanent injury has been inflicted by the septic inflammation both upon the mucous membrane and the muscular coat; and sooner or later, if the same line of treatment is persisted in, relapse is certain. With each of these relapses the patient grows weaker and recovery less perfect. Finally, phosphatic calculi form, or pyelitis sets in, or the excretory power of the kidney becomes impaired, and what Sir H. Thompson has called "death by slow torture" follows.

I do not intend to discuss why in some of these cases catheterism is such a failure—the urethra is full of germs, and these are swept into the bladder every time an instrument is passed—or to estimate the proportion that these cases bear to the number of those patients who are enabled to live in a state of comparative ease by frequently making use of catheters. It is enough for my purpose that there are such cases, and that the present methods of dealing with them are distinctly unsatisfactory. Drainage of the bladder, for instance, is only a palliative. It relieves the results that follow catheterism, but it does not remove the cause; and unless the patient is to be a confirmed invalid for the rest of his life it can only be used as a temporary expedient. The formation of an artificial urethra, either suprapubes or in the perineum, is very little better. The patient has to wear a portable urinal day and night, and though of late much ingenuity has been displayed in improving these it is idle to contend that they are anything but intensely uncomfortable and only tolerated from sheer necessity. And prostatectomy, performed as it usually is as a last resource, when the urine is foul and the walls of the bladder are loaded with septic organisms, is a very serious measure, although the mortality is due not so much to the operation as to the operation being done when it is too late. Orchotomy, on the other hand, although it has objections of its own, is nearly free from these. The mortality, taking into consideration the age and the class of patient in which it has hitherto been performed, is low, and probably, as a better selection is made, will become lower still. The reduction in the size of the prostate that follows is permanent. In many cases the gland completely disappears, stroma as well as glandular tissue, and nothing is left but a little fibrous nodule. As a result the route from the bladder becomes patent again. The post-prostatic pouch disappears. The bladder is able to empty itself thoroughly. No urine is left behind to act as a nutrient medium for bacilli. The acid reaction returns and the cystitis ceases.

These are the conclusions at which I have arrived from my own experience. In speaking of them I intend to rely, indeed, I am compelled to rely, upon the cases, twelve in all, in which I have been consulted or on which I have operated myself. A very large number have been recorded from time to time in the journals, it is true; but in so many of them either the result has been published at once without waiting to ascertain the final state of the patient, or the most essential details have been omitted that it is impossible to make use of them without selection, and selection is never advisable. Dr. Faulds of Glasgow, for example, has published a series of seven cases with six deaths—a mortality which, if it were general, would at once condemn the operation. But although allusion has been frequently made to them by myself and other writers, I have not been able to find anywhere a full or satisfactory account. Some of them, it is said, had already been relieved by perineal section; but though it is rather a material point Dr. Faulds has not told us which or how many. The age is only given in two.

¹ A paper read before the Harveian Society on Feb. 6th, 1896.