procedure. These advantages are, however, counterbalanced in the method which I adopted, by the circumstance that the operation can be performed more rapidly; while, by using a flexible gum-elastic tracheal tube, of sufficient size to fill the trachea, not only can the escape of blood into the lower air-passages be prevented, but the anæsthetic and the hands of the administrator are removed to some distance from the field of operation.

One point to which I desire to direct your attention is, the advantage of dividing the thyroid cartilage close to its upper posterior angle. By separating the superior cornu before dissecting the larynx from the œsophagus, the operation is greatly facilitated, and the danger of injuring the œsophageal wall, or large arteries, is removed. Some operators ligature the superior and inferior thyroid arteries, and if necessary the superior laryngeal, or even the hyoid branch of the lingual artery, as a preliminary to the operation of extirpation; but as far as my experience goes, the hæmorrhage is by no means great, and can easily be controlled.

Unilateral laryngectomy is performed by making an incision down the middle line from the level of the hyoid bone to that of the cricoid cartilage, while another is made along the lower margin of the hyoid bone. The soft parts are then separated from the cartilages on the diseased side; and, after the larynx has been exposed, the thyroid cartilage is split, and the interior of the cavity exposed to view. If, on inspection, the disease be found to be limited to one side, the affected parts are removed; but if not, the cricoid cartilage is not divided from above downwards, but is severed from the trachea transversely, the larynx is dissected from below upwards, and complete extirpation is performed.

Before concluding this lecture, it is necessary for me to say a few words with reference to the treatment of the patient preliminary to the performance of extralaryngeal operations.

The operation, whatever its extent, should be preceded by tracheotomy, which should be performed at least a week in advance. In most cases calling for extralaryngeal interference, the patient suffers from dyspnoea, and consequent engorgement of the pulmonary vessels. This is relieved by the free entrance of air through the tracheotomy-tube. Another reason why the trachea should be opened as a preliminary measure is, that the physical examination of the chest by auscultation is facilitated, especially in cases in which the entrance of air through the larynx is noisy. Moreover, the patient becomes habituated to the entrance of air through an artificial opening, and the irritation produced by the wound leads to adhesion of the trachea to the surrounding integuments. High tracheotomy should be performed; it does not practically interfere with the further steps of the operation, whereas low tracheotomy causes two wounds instead of one.

I will now say a word or two in respect to the after-treatment in cases of laryngectomy. The edges of the wound should not be brought together by sutures, but the cavity should be packed either with a sponge wrapped in perforated green silk, a method which I adopted in my first case; or, for the sponge, there may be substituted absorbent cotton-wool sprinkled over with iodoform or other antiseptic. The dressings should be replaced every twelve hours, and the surrounding atmosphere should be kept at a temperature of 70° Fahr., and warm sponges, sprinkled with iodoform, should be applied at short intervals over the opening of the tracheal tube. Care should be taken not to apply the iodoform too freely on warm sponges. The vapour of the antiseptic is rapidly absorbed by the lungs, and, in certain cases, symptoms of iodoform poisoning may suddenly develop.

The great object for the first few days, that is to say, until the surface of the wound has become covered by healthy granulations, is to keep the discharges thoroughly aseptic, and to prevent, by use of a large tracheal tube, the possibility of their entering the air-passages. Nourishment, and, if required, stimulants may be supplied through a tube introduced into the œsophagus, either by the mouth, or through the wound.

During the first few days after the operation, the only food required is milk, and this should be supplied at the rate of three or four pints in twenty-four hours. When the wound has become firm, the patient may be encouraged to take food by the mouth, and an artificial phonatory apparatus, such as the one I now show you (Dr. Irvine's modification of Gussenbauer's artificial larynx), may be introduced, and the edges of the wound drawn over the upper or pharyngeal limb by strips of sticking plaster. This instrument differs from the original tube devised by Gussenbauer in the following respects. The mechanism of the two limbs is reversed, so that the pharyngeal tube, in place of being introduced through the tracheal tube, is passed first, and the other limb is introduced through it. The phonatory reed is carried by the tracheal tube, and may be drawn out and in with great ease. These modifica-

tions were suggested by my friend Dr. Irvine, of Glasgow, and were employed in Dr. Foulis's first case. This apparatus (kindly made for me by Dr. J. Cowan Woodburn) I will use in a few days for the patient J. W.

I may now conclude by a remark or two with respect to the symptomatic treatment of cases of malignant disease which are unsuitable for operative interference, such as that of the poor man, D. McK., whom you have seen to-day. Life may be prolonged and rendered less intolerable—first, if the tumour cause dyspnoea, by the performance of tracheotomy, an operation which not only permits free access of air to the lungs, but, by relieving the œdema and inflammation of the upper air-passages, facilitates deglutition. Dysphagia may be relieved by the introduction of an œsophageal tube, or by spraying the pharynx with a solution of cocaine. Pain, on the other hand, may be alleviated by insufflations of starch containing a sixth to half a grain of morphine; or, what I consider even better, an ointment containing morphine may be applied to the larynx externally by inunction. Hæmorrhage may be restrained by the hypodermic injection of ergotine; while, to some extent, the general constitutional disturbance may be modified by the administration of preparations of arsenic. The prospects of alleviating suffering in these sad cases are small, and usually, within a few months, the glands becoming implicated, the patient dies. We, however, look forward to the time when very few cases of intrinsic cancer will be permitted to involve the lymphatic system without an attempt being made to remove the primary growth, either by partial or by complete laryngectomy. In order that this end may be achieved, it is absolutely necessary that the disease be recognised at an early stage.

ON THE EARLY TREATMENT OF PROSTATIC RETENTION OF URINE.

Read before the East Surrey District of the South Eastern Branch.

By GEORGE BUCKSTON BROWNE, M.R.C.S. Eng.

AN elderly man, requiring catheterism for partial or complete prostatic retention of urine, may be looked upon as a blind traveller unconsciously approaching the brink of a precipice, and his surgeon may be compared to the friend who, aware of the danger, hastens to his assistance. The friend must interfere, or else the man is lost; but, if he rush unskillfully to his aid, he may cause him to stumble, and so actually hasten his end, although by a very brief period of time; or the man may already have lost his equilibrium, the most skilful aid is unavailing, and he falls, and, in falling, may drag his would-be saviour down with him. In other words, the onlookers, ignorant of the danger, may attribute the loss of the patient to the surgeon and his catheter, and the surgeon's credit, dear to him as his life, be gone. Therefore, with regard to prostatic catheterism, it behoves us as practitioners of surgery, jealous of our reputation and of that of our art, to act from the very outset so cautiously and judiciously, that no one may have occasion to reproach us.

Putting metaphor aside, catheterism, in such cases as we are now considering, may be followed by fever, which varies in intensity from an almost imperceptible illness to one which may speedily place the patient's life in serious danger, and ultimately even prove fatal. In a few cases, there is no fever at all; in some there is a feeling of chilliness, followed by slight but general *malaise*; while in others there is, or is not, definite rigor, the temperature soon running up to 104° or 105°, with a pulse of 100 or thereabouts, followed by a feeling of great heat, and then by sweating and recovery. In graver cases, the fever may be continued and the rigors repeated, the patient ultimately recovering, but being left for a long time weak and prostrate; and, in the gravest cases of all, the fever continues, perhaps without further rigor, the temperature remains about 103° or 104°, the pulse perhaps 120 to 130, the tongue becomes dry, brown, and narrow, and the patient gradually sinks into a comatose condition, and dies.

Now, the important question arises, What is the etiology of this remarkable and often serious fever, and how is it to be prevented, or, at least, mitigated? The answering of these questions is the object of the paper which I have the honour of reading before you this afternoon. Owing to my association with Sir Henry Thompson, my opportunities of observation for the last twelve years have been very numerous. I have known the fever follow the passage down the urethra of a large and sharp edged renal calculus; and, in fact, it may

follow all kinds of urethral irritation, independently of urethral instrumentation. I shall, therefore, not apply to it the term used by some, namely, catheter fever, because catheters are only one of many sources of irritation.

Of course, septicæmia may follow a wound in the urethra, as it follows, occasionally, a solution of continuity in any part of the body. Some have thought the fever we are now considering due to septic invasion of the kidney by the introduction from without of septic matter by means of the instrument. Now, this I cannot allow. In the first place, the fever may follow after every antiseptic precaution has been taken; and, secondly, there are numbers of men about daily and active, whose bladders we know to be constantly full of foul and decomposing urine.

In connection with the causation of this fever, the following case is instructive.

A year ago, Dr. B., a well known hospital medical officer, thin, anxious, nervous, and sensitive, consulted me about a very close stricture. He constantly went about his work with a No. 1 gum-catheter tied into his bladder, and, if he took it out, complete retention frequently ensued. On three occasions, I made gentle dilatation with bougies larger than No. 1, and each time violent rigor and high fever followed. I found that one-third of a grain of morphine, subcutaneously injected half an hour before making dilatation, entirely prevented rigor; but, for obvious reasons, this mode of treatment was impracticable, and I proposed internal urethrotomy. I cautiously, accurately, but freely divided the stricture with Civiale's urethrotome, and, from that day to this, he has had no fever, although every fortnight he regularly passes bougies up to 13 Eng.

Now, such a case as this (and I could quote a dozen) effectually disposes of another theory as to the causation of this fever, namely, that it is due to absorption of urine by the urethral mucous membrane, from abrasion made by the catheter; for, although there was a free incision into the urethra, there was an entire absence of fever, which, previously, had always followed the most gentle and bloodless instrumentation. The absence of rigor and fever under the influence of morphia is also highly significant.

In my own mind, I am satisfied that this fever results from urethral shock communicated to the sensitive excretory apparatus of the kidney through the nervous system, and causing all degrees of suppression of urine, from the merely momentary up to the most complete and absolute. We all know that, anatomically, the genito-urinary organs are closely connected with the cerebro-spinal and sympathetic nervous systems, and therefore with all the organs of the body, and especially with the kidneys. Physiologically and clinically, we know that, when an urethral instrument is passed for the first time upon a man, it is occasionally followed by alarming symptoms; and not unfrequently, in the space of a few seconds, the patient may be writhing on the floor, in all the unsightliness of an epileptiform seizure. A much commoner example of the remarkably close connection between the genito-urinary organs and the general nervous system is the excitement produced in the former organs by a single erotic thought. Death from shock has immediately followed amputation of the penis; and I have known rigor, with complete suppression of urine, lasting for twenty-four hours, and verified by the use of a small catheter, follow the passage of a bougie rather larger than ought to have been passed through an urethral stricture. The nervous origin of the fever explains satisfactorily what we constantly observe in practice, that, the more sensitive and cultivated the nervous system of the patient, the more readily does he suffer from this fever; for example, the medical man and the artist suffer more than the labourer. I am also of opinion, as the result of much observation and practice, that the amount of fever following urethral interference is directly proportionate to the amount and character of the instrumentation inflicted; and it is a very practical point, and all in favour of the theory I accept, that instrumentation, when made under the influence of morphine, is often made without fever in cases where fever is sure to follow if no drug be employed. In proportion to the amount of shock communicated to the kidney, the blood in the general circulation becomes more or less loaded with urinary elements; fever is produced; and, if the kidneys do not speedily recover themselves, it is easy to see that soon the patient may be in danger. In the firm belief that this explanation of the fever is the correct one, I do not term it catheter-fever, for the reason just given; nor urethral fever, because the kidney may suffer shock in other ways than through the urethra; but I prefer, as Sir Henry Thompson does, the name *urinary fever*.

When there has been long standing obstruction to the natural outflow of urine, owing to prostatic enlargement, the kidney is particularly liable to certain changes which render it difficult for it to recover from the congestion consequent upon the shock from urethral

catheterism; and, although the catheterism may have been vitally necessary for the relief of partial or complete retention, still it is the starting-point of serious, and perhaps fatal, illness; and it is difficult to make the patient and his friends understand that, so far from being the cause of the illness, it is precisely because catheterism was not sufficiently early resorted to, that the illness is so severe. There is good reason to believe—putting aside cases where a person endowed with a remarkably sensitive nervous system may die from pure shock—that no one ever dies from urinary fever, if, at the outset, the kidneys be perfectly healthy. Unfortunately, we have no means of ascertaining beforehand whether the kidneys are in a state to bear catheterism or not, although, undoubtedly, urine of a low specific gravity is an unfavourable sign; but we need not let this impede our practice, for, if a catheter be necessary on account of retention of urine, it must be used, otherwise the patient's fate is sealed; and if, through long continued, but perhaps unobserved, disease, he succumb from urinary fever, it is very certain that, had he not been subjected to catheterism, he would have died also, and probably with much more suffering. The full acceptance of the nervous origin of urinary fever is of great help to us in practice. It obliges us, in the first place, to do all in our power to diminish urethral shock; and, when once the fever has come on, it makes plain to us that all our attention must be devoted to the relief of the embarrassed kidney. Our non-acceptation of the septic origin of urinary fever saves our patient from the prolonged instrumentation and disturbance of the bladder and urethra; which are necessarily caused by constant and free antiseptic irrigation; and we make no attempt to mould or straighten our patient's prostatic urethra by the introduction of dilating instruments—an old plan of treatment, recently again brought forward.

The first object of treatment being, therefore, to reduce the urethral shock to its minimum, it is necessary to pass the easiest kind of catheter, and in the most skilful and gentle way. I will, therefore, as briefly as possible, discuss the relief of prostatic retention by instruments. All instruments must be antiseptically clean, warm, and well oiled. They should, if possible, be soft ones, and, as a rule, the smaller they are, within certain limits, the better. The least trying

of all to the urethra, is a No. 5 or 6 Eng. vulcanised india-rubber catheter (Jaques' patent); it is easy of introduction, and if it "go," well and good, but it will not always pass, and then no amount of skill will be of any use. If it will not pass, a small French *coudée* catheter may be employed. I show you a suitable catheter, and also one often supplied, which undoubtedly is a *coudée* catheter, just as a penny Pickwick is a cigar, but not the cigar a *connoisseur* would care to smoke. Keep the beak upwards, and as a rule, this catheter rides easily into the bladder; if it fail to pass, it will probably be due to the point catching in the prostatic sinus. In order to disengage the point of the instrument, gently withdraw it for about an inch or more, and rotate the catheter on its long axis, so that the beak points laterally to the right or left, instead of upwards as it did before. Now try to pass it into the bladder; if unsuccessful, repeat the movement, turning the point this time to the other side. Frequently, this manœuvre will prove successful. If not, a *bicoudée* catheter should next be tried. I do not think that this form of catheter has ever been fully appreciated; it is one of the most useful instruments in certain cases of difficult prostatic catheterism. Probably, the catheter has failed to take its proper position, because such bad forms of it are sold as are represented in figures C and B. Figure A represents a perfect *bicoudée* catheter; its second permanent bend is not abrupt. They are made to perfection by M. Bénas, of Paris. If still unsuccessful, the surgeon may try a very soft-ended olivary catheter; but this

instrument is only rarely of use in difficult prostatic catheterism. Then, if necessary, a large *coudée* catheter may be tried (No. 12 Eng.); for, although large instruments give more pain than small ones, they will often, by reason of their size, avoid an awkward place, which will engage a smaller instrument. I would here mention, with praise, the silk web *coudée* catheters, made in London, and of somewhat recent introduction. They are soft and highly polished, and I have often succeeded with them when an ordinary *coudée* has failed. I think this is because they are soft enough to become practically *bicoudée*d in the urethra, which enables them to pass easily over the bar at the neck of the bladder. Then, the English gum catheter is not to be despised; in skilful hands, it is more effectual than perhaps any other single kind of catheter, for it can be moulded in warm water into any shape, and afterwards "set," by dipping it into cold. A good plan is to keep one of these catheters permanently on a stylet which has been overcurved; when required for use, the stylet is removed, and the catheter keeps its curve so well in the urethra that it will often successfully surmount the obstacle at the neck of the bladder. Another plan of using this catheter in a difficult prostatic case is to introduce it on a stylet. When the catheter meets the obstruction at the neck of the bladder, it is held there with one hand, while the other withdraws the stylet for an inch or two; this movement causes the end of the catheter to rise and come forward, frequently with the happy result of entrance into the bladder. If this be not the case, silver catheters must be used, of various prostatic curves, with the patient either standing or lying. The introduction of the left forefinger into the bowel may often be of assistance, by pressing the point of the catheter forwards. After successful but very difficult catheterism, it may become a question whether the catheter should be tied in or not. This should always be avoided, unless the difficulty have been really great, and then only a soft instrument should be retained. I am as satisfied that I have seen life saved by tying in a soft instrument, as I am that I have seen life lost by using a metal catheter. If a silver or metal instrument alone have relieved the retention, it may often successfully be replaced by a soft instrument, if the latter be moulded on a stylet to the exact shape of the former. With patience, gentleness, and skill, the surgeon should always succeed in passing a catheter in a case of prostatic retention; but supposing that, from great irregularity of the part, or want of suitable instruments, or injury previously inflicted upon the urethra, he cannot pass an instrument, he should not delay, but should aspirate the bladder at once suprapubically. Afterwards, with rest and a thorough evacuation of the bowels, a catheter may often be easily passed through the urethra and into the bladder. Should retention recur and catheterism again fail, a second or even a third aspiration is allowable; but although the bladder has been safely aspirated many (ten or twelve) times in succession, fatal extravasation and abscess have been known to follow even a second aspiration, and it is therefore unwise to aspirate often. After a third aspiration has been necessary, and if still no catheter can be introduced, it will be good practice to puncture the bladder suprapubically with trocar and cannula, leaving the cannula or a small catheter in the wound.

The diagnosis of prostatic retention does not concern us here; but, in discussing its early treatment by catheter, it is conveniently considered under three heads.

1. In cases where the prostate has only recently enlarged, and where the partial, but habitual, retention of urine does not amount to more than two or three ounces after every natural act of micturition, with proper care and management, recovery should always take place. These patients become thoroughly accustomed to the catheter, and use that instrument daily, as a mere addition to their ordinary toilet. They live as long as their fellows, and often attain great age. I recently saw, with Dr. Morton, of Kilburn, a gentleman, aged 85, who had passed all his urine by catheter for twenty-five years.

2. Cases where the patient is able to void urine, but is obliged to do so with much frequency, and there is a large area of hypogastric dulness on percussion, often do not come under the surgeon's notice until there is complete retention; they are always grave, and sometimes almost hopeless from the commencement of treatment.

3. There is a form of complete retention which may be termed the paroxysmal complete prostatic retention, in which the patient only occasionally requires catheterism, often going for long periods without the slightest need of the catheter.

1. In cases where the prostate has only recently enlarged, the first catheterism will often be made as an aid to diagnosis. Owing to certain symptoms, the surgeon desires to find out if the patient be able to empty his bladder by his natural efforts. If the patient be ordinarily robust, the catheter may be passed in the consulting room, and afterwards the patient should go home, and sit in a warm room for the

rest of the day; but, if he be nervous or in any way out of health, I would advise the surgeon to make an appointment with him at his own house, and ask to be received in his bedroom. Before the catheter is passed, the patient should be desired to pass all the urine he can by his own efforts. He should be left alone for this purpose. Afterwards, the patient stands with his back to the wall, and the surgeon, seated in front, passes a No. 5 vulcanised india-rubber, or a small French elbow catheter; any urine drawn off will be urine which the patient could not pass himself. If only an ounce or so be found retained, the experiment had better be repeated next day; because, often from sheer nervousness, a patient may be unable to make his bladder act completely on the first occasion. I may here say that, most unfortunately, the use of cocaine as a lessener of urethral shock, during early catheterism, is impracticable; the drug renders the urethra insensitive where it comes into contact with it, but it cannot be introduced into the deep urethra without using a urethral instrument, so that nothing is gained by its use. After such catheterism as just described, the patient should have a hot bidet bath. If no urine be found behind, he may be allowed to go out the next day; but, if two, three, or more ounces are found, he should at once learn to pass a soft catheter, and, for a week or ten days, should not leave the house. If the quantity retained be considerable, e.g., five or six ounces, and if the patient be feeble, he had better keep his bed at first. The catheter is usually required once a day for less than three ounces of retained urine, twice a day for three to six ounces, and three times daily for six or seven ounces; over this amount, the patient will not be comfortable without four or more catheterisms in the twenty-four hours.

2. In treating those coming under my second heading, there is usually little doubt that the bladder habitually retains a large amount of urine (say a pint, or more). Such cases should not be touched by catheter until they are comfortably settled in a warm room, where they can remain as many days or weeks as the surgeon may deem necessary. The urinary fever, which is almost certain to follow catheterism, will be much controlled if a little morphia be administered half an hour before the catheter is used. If by mouth, I prefer a small dose of Squire's solution of the bimeconate of morphia, or of nepoche; but, in my own practice, I prefer a small dose of morphia, combined with atropine, injected hypodermically. If the bladder be very full of urine, it should not be emptied at the first catheterism. It is quite enough to draw off from sixteen to twenty ounces; otherwise, pain and cystitis are produced, both of which we wish particularly to avoid. Usually, four or five days should elapse before the bladder is completely emptied. In all cases, after the commencement of regular catheterism, if there be constitutional irritation, advantage will follow the administration of small doses of an opiate, two or three times a day. Should rigor come on, spirits must not be given, but the patient should be warmly wrapped up, hot bottles put to his feet, and hot tea, or other simple drink given to encourage perspiration. If the fever run very high (105°), and the patient be fairly robust, frequent small doses of antimony wine are useful; if he be not very strong, the salicylate of soda may be given, and, when the fever is slight, frequent small doses of liquor ammoniæ citratis are excellent. Sometimes, as patients approach recovery, there is considerable diuresis, which may occasion much disturbance, at a time when they are not well able to bear it. Here, some one of the many preparations of opium will act as a charm, by checking the secretion of urine, while, at the same time, it promotes the action of the skin. I do not recommend belladonna, nor atropine, except at first combined with morphia hypodermically, to lessen the effects of shock. Counter-irritation, doubtless, exercises much influence over the production of urinary fever, as witness the remarkable immunity from fever often enjoyed by patients who are relieved by catheter from very painful retention of urine. The very hot bidet or hot hip-bath is a mild form of counter-irritation; hot mustard and linseed poultices over the loins, and even blisters, are other forms which sometimes may be employed with advantage. In order to enable the kidney to recover itself, those organs which are complementary to it in their action, notably the skin and the liver and intestines, must be kept active; the former is stimulated by the warmth of the bed or bedroom, and the latter should be made to act gently, daily, by a little simple laxative medicine (not saline), combined occasionally with small doses of blue pill. The diet should consist of bread, vegetables, soup, fish, game, and chicken, with little, if any, butcher's meat, and no milk or cheese. As a rule, spirits must be avoided, and as little wine given as the plaintiff's previous habits will allow. Above all, the patient must be able to obtain relief by the catheter, whenever the calls to pass urine are frequent, and the bladder evidently suffering from ineffectual efforts to void its contents. The amount of urine secreted in any given portion of the twenty-four hours, varies greatly from day

to day, and the patient must not be dependent upon the periodical visits of his surgeon for instrumental relief, but should learn to pass a catheter for himself, or have a skilful attendant always at hand. If no urine is passed naturally, the catheter must be used whenever the desire to micturate comes on. Patients often try to postpone the use of the catheter as long as possible, and look upon the instrument as a source of irritation; the reverse is exactly true, and it is better to pass the catheter even oftener than is really necessary, than too seldom.

3. After complete retention of urine, all the care just insisted upon is specially important. After relief by the catheter, the patient should go to bed. If the amount of retained urine be great, the bladder must not be emptied suddenly, as such a proceeding has been followed by fatal syncope. If the amount be not great, *e.g.*, under a pint and a half, the patient should be watched, and, if he be able, in time, to pass urine naturally, the catheter should be employed after he has done all he can by his own efforts, to see if he really can empty his bladder. In the few cases where the patient regains his vesical power completely, he should keep his bed twenty-four hours, and his house for two or three days, and take a little calomel or blue-pill, with some mild laxative. But if, as is usual, the regular use of the catheter is required, the patient should be kept in bed until the urinary fever, which is usually to be expected within the first five or six days, has passed away. During the first few days of catheterism, hæmorrhage into the bladder not unfrequently occurs; this need not excite alarm, provided the necessary instrumentation is practiced with gentleness and skill, and that the patient is kept absolutely at rest. In such cases, morphia is often very useful; astringents by mouth are really useless, and injections into the bladder are to be deprecated as long as bleeding lasts.

Thus, the main points to be observed in the early treatment of prostatic retention of urine, are:

1. The reduction of the urethral shock to its minimum;
2. The care necessary to enable the kidney to maintain, or regain, its equilibrium, often rudely disturbed by reflex irritation, conveyed from the urethra.

CASE OF INTERCURRENT HEPATITIS AND RETAINED GALL-STONES.

Read before the Glasgow Medico-Chirurgical Society, April 2nd, 1886

By ALEXANDER NAPIER, M.D.,

Assistant to the Professor of Materia Medica and Therapeutics in the University of Glasgow.

MRS. W. T., aged 43, had been subject to occasional "bilious" seizures for at least six years, and to a tendency to prolapse of the womb for several years; for the latter affection she wore a pessary. She stated she had "gastric fever" twice, once twenty-three years ago, and again fourteen years ago; she was five weeks in bed in the last attack, not so long in the first.

With the exception of the "biliousness" referred to, there was no indication of grave involvement of the liver till June 21st, 1884, when Mrs. T. suffered from well marked symptoms of hepatitis: acute pain in the right hypochondrium, enlargement of the liver, feverishness, nausea, and sickness, but no rigors, and no jaundice. She was confined to bed about two weeks. Mrs. T. then continued tolerably well with occasional "bilious" attacks, always with want of appetite, till May, 1885, when she had another similar illness (apparently hepatitis) but much slighter, lasting only a few days.

In the end of July or beginning of August, 1885, she received a severe blow with a tennis-ball in the pit of the stomach. This caused intense pain at the time. From this date onwards the general indisposition, and the uneasiness in the region of the stomach, increased; there were a constant, dull, heavy pain in the hepatic region, entire loss of appetite, and progressive debility.

On September 10th, 1885, the pain suddenly became very acute, and was accompanied by sickness and vomiting, which lasted for three days; this was followed by marked jaundice, the urine becoming very dark in colour, and the stools white, or pipe-clay coloured. The patient at this time was twelve days in bed, but the jaundice did not disappear till six weeks had elapsed. She then improved a good deal in general condition, and suffered no longer from headache or sickness; but there was still entire absence of appetite.

On November 18th, 1885, there was another sudden attack of severe pain in the hepatic region, which had been preceded for a day or two

by an increased sense of uneasiness in the liver. It was then that I saw her for the first time. The attack was one of typical gall-stone colic; the pain was spasmodic, exceedingly severe, shooting up to the shoulder and through to the spine, causing the patient to cry out; it was accompanied by marked and severe rigors, and by vomiting. Pulse 96; skin cool; tongue whitish and moist. Relief was obtained from the use of morphia subcutaneously.

After the first night, the pain was not so severe; but the liver continued tender to pressure. The irritability of the stomach lasted for several days, only small quantities of liquid food being tolerated. Then vomiting ceased; the pulse rose to 120, and the temperature to 100° and 101°, for many days in succession; marked jaundice came on, with constipation, whitish stools, very dark (almost black) urine, headache, and nausea. The liver was tender to pressure over the left lobe and over the region of the gall-bladder; in the latter situation, a well-defined rounded mass could be felt. Hepatic dulness was not perceptibly increased in the axillary line, nor over the left lobe; but at the median edge of the right lobe, in the region of the gall-bladder, it came far past its normal limits downwards, exactly corresponding to the firm mass above referred to. The swelling was smooth, firm, and resistant, but gave no sense of fluctuation, or of rubbing, when grasped.

Treatment consisted in the use of morphia at first, to relieve pain, the occasional administration of saline purgatives, chloride of ammonium, and pancreatised food, together with persistent poulticing of the hepatic swelling.

The patient was seen early in December by Professor Gairdner; he, without rejecting the theory of gall-stone, rather favoured the view that we had to do with an abscess or tumour of some kind.

The patient's general condition gradually improved, though the mass projecting from the lower border of the liver continued rather tender to pressure, and quite unaltered in size, till January 8th, 1886, when she had a severe rigor, vomiting, and acute hepatic pain; while the mass became distinctly larger, and much more tender. The skin and superficial tissues were freely movable over the swelling. Pulse 120; temperature not noted, but certainly not febrile. In a couple of days, the pulse had fallen to 90, the sickness had ceased, and the local pain much diminished; this attack passed off without any jaundice.

On January 18th, the patient complained much of severe darting pains, with considerable tenderness to pressure over the whole abdominal surface, not specially over the swelling, though this continued tender. These pains, probably connected with the formation of adhesions between the swelling and the abdominal parietes, lasted for several days, but yielded to persistent poulticing.

On January 22nd, she was ordered capsules containing ether and turpentine.

On January 25th, there was slight vomiting once, and the capsules were stopped.

On January 27th, very severe and persistent vomiting set in. Absolutely nothing, not even a drop of water or broken ice, remained in the stomach. The pulse ran up to 135, and the patient became exceedingly prostrate. She was supported by nutrient enemata.

On January 29th, she was seen by Professors Gairdner and Buchanan, and was apparently sinking. The general abdominal pain had gone, but the tumour was unchanged in character, except that it felt more adherent to the skin. It was agreed that the swelling should be opened next day. Morphia, given subcutaneously, procured for the patient a fair night's sleep; and small quantities of milk and brandy were retained by the stomach.

On Saturday, January 30th, Professor Buchanan performed the operation, which he describes in the following article.

CHOLECYSTOTOMY FOR THE REMOVAL OF BILIARY CALCULI, RETAINED IN A GALL-BLADDER WITH OCCLUDED CYSTIC DUCT.

Read before the Glasgow Medico-Chirurgical Society.

By GEORGE BUCHANAN,

Professor of Clinical Surgery in the University of Glasgow.

ON January 29th, I was asked by Dr. Napier to consult, along with Professor Gairdner, in the case of Mrs. T., aged 43. She had been suffering, for eighteen months, with intercurrent attacks of hepatitis, followed, for the last three months, by symptoms of retained gall-stones; this last condition following on a blow she received on the epigastrium from a tennis-ball. The details of her illness were related