same way, with equal success? Ovariectomy is abdominal section for the removal of a certain tumour, and this is a case of abdominal section for the relief of a gut damaged by strangulation.

CASE I teaches another lesson—one in nursing, namely, the necessity of carefully examining a patient all over. Here was a large bed-sore, which was not discovered until some days after the operation. This is an instance of careless nursing. There are other questions which these cases bring prominently before one's mind, apart from their illustrating the trite saying that every case of strangulated hernia differs from every other. One is the question of drainage. We ought all to bear fully in mind the danger of pent-up secretions, a subject so ably dealt with by Mr. Wheelhouse (*BRITISH MEDICAL JOURNAL*, vol. i, 1885, p. 85) and others. Under what circumstances is drainage necessary in herniotomy? At the necropsy in Case v, there was a great deal of blood-stained serum found in the abdomen; how far this had to do with the fatal result it is impossible to say, but it is fair to conclude that it had a pernicious effect. I believe that if there had been efficient drainage, the patient would have had a better chance of recovery, and I resolved thenceforth, in all cases where the bowel was dark in colour, not to neglect drainage. I believe it is a most important detail of treatment. In the next case, I had an opportunity of putting my resolve into practice, and, although the case had many bad points about it, the ultimate result was successful. I prefer a Keith's glass drainage-tube to any other.

CASE II shows how very careful we ought to be in examining an ommental hernia to see if any portion of bowel is included in it. The difficulty was caused by the bowel being so intimately adherent to the omentum, and by both being of the same dark claret colour. Still, I cannot altogether free myself from blame in not detecting the bowel.

CASE III is an illustration of how little a fatal strangulation of the bowel sometimes affects the general condition of the patient. She was first seen in the out-patient department, where she did not complain of the hernia, and she walked from the ward to the operation-room, having no look of distress about her, and getting on to the operating-table without assistance.

CASE IV was a miserable-looking specimen of neglected humanity, with a quaint little face, always indicative of astonishment, never smiling. It was said to be the youngest child operated on for strangulated hernia; but this is not correct, as may be seen by a reference to Neale's *Digest*. It will be seen that the day after the operation in this case I have noted "tears." I look upon the presence of tears, or their return after being absent, as a most favourable sign in the serious diseases of children.

In all the cases of strangulated hernia here recorded, the temperature before the operation was 97°, or lower; this sign should, I think, be added to the list of those of serious import. I would add a few words of earnest advice to junior practitioners in dealing with cases of strangulated hernia. Let there be no dallying. Waste no time with opium, warm-baths, etc. Give no medicine; I hope it is needless to say, give no purgatives. Put the patient fully under an anæsthetic, and give taxis a fair trial, in consultation with a brother practitioner, if possible, and, if unsuccessful, proceed to operate, or, if not willing to do so yourself, call in a surgeon for that purpose. I have waited in some instances, and with success as to the ultimate result, but I do not intend to do so again; the risk is too great.

I would open the sac in all cases; in these days of antiseptic surgery, I see no advantage to be gained by not doing so, and there is a risk of returning the bowel with a stricture at the neck of the sac. I have a vivid recollection of such a case, which occurred to me in the early days of my practice, and where the patient died. The sac must be opened, if we are to see what condition the bowel is in. Lift the whole of the bowel out of the scrotum, if it is a scrotal hernia, and, after dividing the stricture, draw down the bowel a little, if it has been some time strangulated, in order to see its condition at the point of constriction. Be prepared for efficient drainage. Be prepared to wash out the abdomen thoroughly with warm water, if such an accident should happen as in Case III.

After taxis has been fairly tried and has failed, it is undesirable that a number of surgeons should successively repeat the operation. In a supposed case of strangulated hernia where no tumour is to be found, I would open the abdomen. In the after-treatment, pay marked attention to what appear to be small details. It is an axiom in both surgery and medicine that successful treatment often depends on such attention. The most important point is that the parts should have as complete physiological rest as possible; and, with this object in view, little or no food should be given by the mouth for some days after the operation. Sedatives, as opium, may be indicated, or the application of ice to the abdomen. In no case give purgatives. I recollect an instance where I operated for a strangulated femoral

hernia. The bowel was very dark. At the request of the patient to have some relief of the bowels, the practitioner in attendance gave a dose of castor-oil, and the woman died next day.

Let the points I have here laid stress upon be conscientiously acted up to, and we shall not so frequently, when we see an operation failing to save life, have to utter those words, "Too late—too late!"

REMARKS ON A METHOD OF FIXING THE BONES IN THE OPERATION OF EXCISION OF THE KNEE-JOINT.

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IN the *JOURNAL* of February 12th, Mr. Baker has fully described the proceeding by which he maintains the tibia and femur in close and even contact with each other after excision of the knee, by the use of steel pins. I believe he has rendered good service in laying this method before the profession. My own experience of a slight modification of it is that it renders the after-treatment of excision of the knee-joint much more simple, and much more free from the risk of failure than is otherwise the case. It is hardly necessary to point out that the knee is the only instance in which the surgeon aims at securing bony ankylosis after excision, and the only instance, therefore, in which the same immobility that is required during the union of a fracture has to be provided. In every other joint the object is to preserve free movement.

As the after-treatment of excision of the knee involves, for some five or six weeks, this perfect fixation of the tibia in relation to the femur, and, at the same time, the coincidence of the local axis of the two bones, both the kind of splint that is selected and the accessories that are employed are matters that largely influence the success of the operation. In putting up an excision of the knee, the surgeon has not only to guard against the shifting of the tibia on the femur that may be produced by the movements of a restless patient, by spasmodic action of the muscles, or by the disturbance of the limb when the patient is lifted, however carefully, for the action of the bowels; he has also to prevent the riding of the femur in front of the tibia, which is especially apt to occur in cases in which the bones of the leg have undergone displacement backwards towards the popliteal space. To prevent this latter condition, I have for the last four or five years employed the apparatus recommended by Mr. Gant (*Practice of Surgery*, 2nd edition, vol. ii, p. 16). This consists of a back splint and an outside splint. The former is a simple straight splint, extending from just below the tuberosity of the ischium to the commencement of the tendo-achillis. In adaptation to the limb, it is wider above than below, slightly concave and well padded; but, in adjusting it, pads are added to the part corresponding to the leg, so that the tibia is brought well forward, and landed up, so as to be raised to the level of the femur. By this means, the plan of binding the femur down to the level of the tibia, a proceeding which involves firm constriction of the thigh, and often produces oedema of the soft parts about the knee, and thus interferes with sound healing, is avoided. As soon as the limb has been secured on the back splint, so that the tibia lies in easy and close contact with the femur, the bones are pinned together.

The modification of Mr. Baker's plan, to which I have alluded, and which I copied from Mr. Willett, consists in the use of pegs made of bone instead of steel. Ordinary bone knitting-needles answer the purpose well. These, with their ends sharpened, are very easily introduced through orifices in the tibia made with a bradawl, and can be readily driven to the requisite distance onward into the femur by a few slight taps with a mallet.

The other part of Mr. Gant's apparatus consists of an outside splint, reaching as high as the great trochanter, furnished with a foot-piece, and interrupted at the knee. It serves to steady the whole limb. It is applied as soon as the bone-pegs have been introduced. The concluding part of the operation comprises the suturing and dressing of the wound. These steps come last, so that it can be ascertained that, when all is finished, the bones are still in proper apposition, and so that the dressings can be changed without disturbance of either the outside or the posterior splint.

In the first three or four cases in which I used these bone-pins, I left their ends projecting, so that they might subsequently be extracted. I found, however, at the end of a month—when union, I anticipated, had become firm—that although some were loose, others were so tightly fixed that they could not be withdrawn. I therefore broke them short off, and left them. In later cases, I have cut

them off short at the time of the operation, and have seen no more of them.

I have used these bone-pins, combined with Mr. Gant's splint, in nine cases, and the result has been very satisfactory. From the moment of the introduction of the pins, the two bones have remained firmly fixed upon each other. In one case, that of a little girl, aged 5, the skin-incision closed in eight days without suppuration. In a man, aged 22, union of the skin was complete in fourteen days, except at one end of the incision, where a small opening, discharging a few drops of sero-pus, remained for a few days longer; his temperature was never above normal, and he had no pain. In a third case, in a girl aged 9, union was complete in a fortnight, and the wound was only dressed once. In another case, in a little girl aged 4, the wound healed in nine days. In one case, I adopted the plan suggested by Mr. Golding-Bird (*Clin. Soc. Trans.*, 1883)—that of dividing the patella transversely, turning one fragment up, and the other down, and then, when the ends of the tibia and femur have been removed, replacing the fragments of the patella, and wiring them together. A very strong limb was the result, and, within six months of the operation, the patient, a sturdy lad, aged 16, walked from London to Great Yarmouth, a distance of about 120 miles, in seven days. In four other instances, healing has been somewhat more prolonged, but in all sound repair has occurred. The ninth case is still under treatment, and has been the least satisfactory of the series. The patient, a delicate boy, aged 7, has had high temperature, and there have been free suppuration and considerable pain; but the bones have remained in close apposition, and he is now doing well. He appears, however, to be acutely tuberculous, and has had, since the operation, suppuration of his cervical glands.

The value of this method of pinning is well seen in cases in which, owing to displacement backwards of the tibia, it is impossible to place the limb in a straight position without either cutting away so much bone that the epiphyseal lines must be either destroyed or so far encroached upon that growth would be arrested; or using such force that serious mischief might result. Under these circumstances, I have on two occasions, in children aged respectively 4 and 5, brought the bones into the best line I could secure with safety, and have pinned them together in a position of some degree of flexion, and have then, when union has occurred, gradually straightened the limb by means of a back splint and a carefully applied elastic bandage.

It may be of interest to note the fact that some of the bone-pegs, when removed, after having been embedded for four to six weeks in the cancellous tissue of the ends of the tibia and femur, were deeply eroded by absorption; while in three or four instances the pegs had become so firmly fixed that they could not be pulled out—a result no doubt due to the circumstance that they had become deeply eroded, and that then new bone had moulded itself upon their irregular surface, and so locked them *in situ*. Mr. Savory found that when pegs of bone were tightly driven into the femur of a rabbit, they underwent considerable absorption in five, and had nearly disappeared in twelve weeks. Probably the pegs used in fixing the bones after excision are entirely absorbed in the course of three or four months.

SURGICAL MEMORANDA.

REDUCTION OF SUBGLENOID DISLOCATION OF THE HUMERUS.

THE various methods already instituted for reduction of this dislocation leave but little ground for investigation in extending or improving any particular plan. The two following cases may prove of some interest to the readers of the JOURNAL.

CASE I.—This was the case of a middle-aged, fairly muscular man whose right shoulder had been dislocated about twelve hours before being seen. Reduction was repeatedly and successfully tried with the aid of an assistant—by the knee-in-axilla method. Then, with the patient still seated, I grasped his wrist with the left hand, and his elbow with the right, and having flexed the forearm on the arm, the latter was (1) flexed to the level of the shoulder; (2) then, by continued elevation, now combined with external rotation, it was raised to nearly in line with the long axis of the body; (3) the arm, still in a state of external rotation, was then depressed to the side, when (4) it was rotated inwards. By the time these four movements had been performed, reduction was complete.

CASE II was that of a farm labourer, aged 26, whose left shoulder had been dislocated about two hours. By the method above

described reduction was successfully accomplished in the time taken to perform the various movements, namely, about five seconds.

In right-sided dislocations, the surgeon should stand more or less posterior to the patient, while the latter is seated on a chair somewhat below the average height. When the left humerus is dislocated, the patient, seated on a chair of good average height, should be placed face to face with the surgeon. I can recommend the method as elegant, rapid, successful, and I think free from intercurrent danger.

The dislocation is in a downward and inward direction, and the above method of reduction is physiologically adapted. The upward movement brings the head of the bone to the margin of the fossa, which acts as a point of resistance in the movement of external rotation; the latter brings the head into the glenoid cavity, while the subsequent depression and ultimate inward rotation of the arm place the head in its normal position.

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RETENTION OF URINE CAUSED BY A PIECE OF THORNY CANE.

DURING the autumn of 1881, when acting as Civil Surgeon of Backergunge, a district of East Bengal, the following case, which presents some interesting features, came under my notice. I am not aware of a similar case having been noticed before. On October 7th, whilst I was at the Civil Dispensary at Barisal, a man came up in rather a shamed way, and complained of retention of urine since the previous night; something, he said, had got fixed in the urethral channel. On examination, a foreign body was seen projecting slightly beyond the urethra. The lips of the meatus were swollen and lacerated, and the foreign body was tightly grasped. The foreign substance was a piece of the stem of the thorny cane (*Calamus rotang*), and the accompanying drawing gives a very fair idea of its size and shape.

Front View.

Side View.

Portion of a thorny cane removed from the urethra of a man (natural size).

Before bringing him to hospital, he and his friends had tried the effect of direct traction for some hours, only with the result of cruelly lacerating the urethral mucous lining and more firmly wedging in the piece of twig. It was obvious that any further effort in this direction, even the gentlest, would have greatly increased his sufferings, and, from the nature of the foreign body this will be readily understood. I, therefore, gently pushed it back, until I judged all the thorns had become disentangled, and with some little trouble succeeded in passing a cannula over it, as recommended by Mr. Christopher Heath, and withdrew the piece of stick easily through the cannula.

Beyond some slight scalding and pain in micturition for some few days, no ill-effects followed. It transpired on inquiry that three brothers, not quite approving of the attentions paid by my patient to one of their female relatives, took counsel together, and waylaying him in the jungle at night, overpowered him and deliberately introduced two and a half inches of thorny cane into his urethra, well knowing from the disposition of the thorns on the stem that it would be extremely difficult, if not impossible, for the victim himself to remove it, and that, in any case, extreme suffering would result; a powerful moral hint being at the same time inculcated in a way that would ensure its being remembered through life.

Dr. Chevers, in his work on Indian Medical Jurisprudence, p. 556, merely mentions that "pieces of straw and wire" have been occasionally introduced into the male urethra as methods of torture. From the reference given in the footnote this was apparently done only in the Madras Presidency.

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