PROVINCIAL MEDICAL & SURGICAL JOURNAL.

CLINICAL LECTURES ON DISLOCATIONS, DELIVERED AT THE CHARING - CROSS HOSPITAL.

By HENRY HANCOCK, Esq., Surgeon to the Hospital.

LECTURE XVIII.

Within the last few weeks we have had the following cases of dislocation of the shoulder into the axilla brought to the Hospital, and in all reduction was effected, without difficulty, by the following methods :—

CASES.

Thomas Bamfather, having fallen down whilst intoxicated, injured his right shoulder, and was brought to the Hospital, where he was seen by Mr. Haulton, the House-Surgeon. Upon examination, this gentleman ascertained that the head of the humerus was thrown downwards and inwards into the axilla, and proceeded to reduce it in the manner related below.

You are aware that the benches upon which the patients sit in the surgery have very high backs, so that the thick top rail reaches rather higher than an ordinary man's shoulder. Mr. Haulton made the patient sit sideways on the form, with the injured shoulder towards the back, then taking the patient by the wrist he carried the arm over the top rail, and making extension upon the limb, the head of the bone returned to its situation. The patient had dislocated his shoulder on five previous occasions.

This plan in no wise differs in its principle from the coustaff, door, ladder, &c., and is liable to the same objections. In careful hands it may succeed, as in the case before us, without any bad results to the patient; but if carelessly employed, if the top rail be not placed well up in the patient's axilla, if the extension be made violently and not quite in the proper direction, it is liable to cause unnecessary injury to the soft parts, and even fracture of the bone, as described by Petit in some of the cases treated by the ladder. White's plan, the knee or heel in the axilla, is, in my opinion, decidedly preferable.

Jane Wall, is subject to fits, and whilst in her convulsions usually dislocates her right shoulder

downwards and inwards into the axilla. During the last two years her shoulder has been reduced at this Hospital above fifteen times. The bone is returned without the slightest difficulty by placing the knee in the axilla.

Mr. F. C., was driving a cab along the Strand, and not being a very good whip, ran against another vehicle and was thrown out, alighting on his right shoulder, which was dislocated. He was immediately brought to the Hospital, where he was seen by Mr. Crucifix, the House-Surgeon on duty, who reduced the bone by placing his knee in the patient's axilla, according to the method which I have already described to you.

Ann Cookson, fell down, and putting out her arm to save herself, her shoulder was dislocated into the axilla. Upon presenting herself at the Hospital, the bone was immediately reduced by raising the arm vertically by the side of her head, and suddenly bringing it down to her side, at the same time pushing the head of the bone upwards and outwards towards the glenoid cavity.

Hugh McMillan, fell down, and dislocated his left shoulder downwards into the axilla. The same method was adopted as in the last case, and the bone returned with the greatest facility.

James Murphy, a bricklayer's labourer, fell down stairs with a basket of rubbish on his back and dislocated his right shoulder into the axilla. I saw him about an hour after the receipt of the injury, when he presented the usual signs of this accident. He was a very muscular man. Reduction attempted by raising the arm vertically by the side of his head, and also by placing the knee in the axilla, proved unsuccessful. He was therefore made to lie upon his back close to the edge of his bed, and the heel placed in the axilla, steady extension was kept up for about two minutes, when the bone returned to its proper place.

We will now consider the various methods arranged under the second head, or where we call in assistants to aid our endeavours; embracing the modes of reduction performed by manual extension and counter-extension.

I have so recently expressed my opinions against

the employment of assistants, and in favour of pulleys in all cases of difficulty, that it will be needless for me to say anything more upon the subject at the present time. You may, however, be placed in situations where pulleys are not attainable, and consequently, however I may, as a general rule, disapprove of the unequal force exerted by multiplied manual extension; still, as you may sometimes be called upon to employ it, you ought to know the most efficient way of so doing.

The following was the practice of Desault:—

The patient laid upon a table, he applied a thick linen compress under the axilla of the luxated limb, and upon this, the middle of the first extending bandage, the two ends of which he brought obliquely before and behind the chest, making them meet at the top of the sound shoulder; these were held by an assistant, so as to fix the trunk, and make counter-extension; two assistants took hold of the forearm above the wrist, or else a towel, doubled several times, was applied to this part; the two, twisted together, were held by one or two assistants, who pulled in the same direction as that in which the bone was thrown.

After this first proceeding, designed to disengage the head of the bone from its accidental situation, another was employed, differing according to the road of luxation. If this was downwards, the arm was brought gradually near the trunk, at the same time being pushed gently upwards. When forwards, the lower end of the bone was inclined upwards and forwards, that the head of the bone might be guided backwards, and *vice versâ*, when the luxation was backwards.

Ambrose Paré recommends, "First let one of sufficient strength, placed on the opposite side, hold the patient upon the joint of his shoulder, and another taking hold of his arm above the elbow, draw and extend it downwards, that the head thereof may be set just against its cavity; then let the surgeon lift and force up with his fist the head of the bone into its cavity."

The plan which you will find as available as any other, is to place your patient in a chair or stool of convenient height, confine the motions of the scapula, either by a folded sheet or table cloth, or by a bandage with a hole in it, to allow the arm to pass through in the manner I have before explained to you. Having wound a wet roller above the elbow, apply either a towel, a piece of strong tape, a strong skein of worsted, or what is perhaps better, a piece of stout sheeting or calico, three or four yards long, and half-a-yard wide, folded until the breadth is reduced to three inches, as recommended by the late Mr. Lucas. Either of these may be employed in the manner preferred by the French, who fold the middle of their extending bandage into the form of a capital S reversed. This is placed in the

front of the limb, and fixed by carrying the ends round it, and passing them through the corresponding bows of the latter; thus supposing the right arm to be luxated, the upper loop or bow of the letter would have its convexity towards the outer side of the limb, and the end of the bandage hanging down on the inner side, whilst the lower loop and end would be reversed; the upper end is to be carried from within outwards, under the arm, and through the upper loop, the lower end from without inwards under the arm, and passed through the lower loop; both ends being now drawn downward towards the fingers, the bandage is fixed. Or you may use the sailor's knot, or what is called a *clove hitch*; this is made in the following manner:— Having ascertained the width of whatever you are going to use, whether sheet, towel, worsted, or calico bandage, you take it in your right hand, between the forefinger and thumb, at that point, and apply your left hand at a little distance, regulating the length of bandage between the hands, according to the size of the limb, and consequently of the noose required. You keep your left hand quiet, but with the right describe a half circle from right to left, and bring that portion of bandage held between the finger and thumb of your right hand in front of that retained in your left; you fix it in this situation by placing your left thumb upon it. Holding the loop thus formed in your left hand, with your right again take hold of the bandage at the same distance from your left hand as that which separated your two hands in the first instance, and make a second loop exactly in the same manner as you did the former, that is, bring that portion held in your right hand in front. Do not move your left hand at all, but place your right hand and the second noose behind it and the first noose, and your clove hitch is formed.

The patient's arm should be raised rather above the horizontal, and your assistants draw simultaneously on the extending and counter-extending bandages. It is obvious that you should equalise the power as much as possible, and not have a greater number of assistants pulling on the arm bandage than you have at the scapula bandage; for if you do, your extension and counter-extension will be destroyed, as one party will have it all their own way. Usually four assistants, two for extension, and two for counter-extension, will be sufficient, but the length of bandage enables you to increase the number as you may think fit. Let the opposing forces be employed as gradually, steadily, and continuously as possible, and be sure that all jerking is avoided. Whilst extension is being made, you keep your left hand upon the acromion process, to prevent it tilting up, and with the other you ascertain from time to time whether the head of the bone moves from its accidental situation, and the

extent to which it has yielded. After the extension has been kept up for a few minutes, and the head of the bone has been drawn over the edge of the glenoid cavity, it will return without further trouble with an audible snap or a grating noise. But in some cases, although the head of the bone obeys the extension to a certain degree, other aid may be required to effect its reduction; you had then better follow Sir Astley Cooper's advice:—"Place your knee in the axilla, resting your foot on the chair by the side of the patient, then raise your knee by extending your foot, at the same time pushing the acromion downwards and inwards"

In some instances you will find the plan recommended by Mr. Lawrence successful. When you consider the arm is sufficiently extended, place your knee in the axilla, and tell your assistants to let go suddenly, you at the same instant bring the patient's arm downwards and forwards over your knee. I have occasionally succeeded, after extension has been somewhat prolonged, by telling the assistants to let go suddenly, at the same instant bringing the patient's arm rapidly across his chest. The first case in which I saw this attempted, was in a patient brought down by Mr. White to the Westminster Hospital, to have the pulleys applied. He had dislocated his shoulder the night before, was a stout hearty man, with muscles well developed. Extension was kept up for a considerable time, and various modes employed, but without success, until Mr. White, desiring the assistants to let the arm go suddenly, carried it across the patient's chest, and the bone slipped into its place without further difficulty. Whilst extension is proceeding, you will sometimes find rotating the arm of service; it serves to dislodge the bone from any impediments, and, as Sir A. Cooper pointed out, diminishes the opposition of the muscles.

Mr. Hey has shown us that when the head of the humerus remains in the axilla, not far removed from the glenoid cavity, it is sometimes reduced by a very small degree of extension. "In the autumn of 1772, a corpulent woman fell from a chair upon which she was standing, and dislocated her shoulder. When everything was prepared, I desired the assistants, who were to make extension, to keep the arm elevated at right angles with the body till I should tell them to begin. In doing this, they kept the arm a little on the stretch; while it was in this state, I placed my fingers below the head of the bone, and pressing them upwards into the axilla, the reduction was unexpectedly made by this gentle effort." He remarks, "This case determined me to try whether reduction might not sometimes be effected with less extension than is commonly used. It appeared to me upon reflection, that the muscles, when so far stretched as to be rendered painful, begin to react and resist

the efforts made for their elongation. I thought it probable, therefore, that a greater degree of extension might be produced before the reaction took place, if it were made very slowly, and that the reaction might grow less or cease, after it had begun to take place, if the arm were kept in a moderate but not painful degree of extension for sometime before any attempts were made to push the head of the bone into the articular cavity. By acting upon this principle, I have several times reduced a luxated humerus with the assistance of very little extension. I am inclined to think, that much extension is seldom necessary while the head of the humerus remains in the axilla." He relates a case, where, after other methods had failed, the patient had been drawn from the ground by his arm, but at length, on letting him down, his arm was allowed to fall down gently, and the head of the bone slipped into its socket. In another case he succeeded by making the patient sit on the floor by the side of the table. Two towels were placed on the arm, and held by two assistants, standing on the table: the elbow being bent, the assistants drew it first vertically, and afterwards walked forwards, so as to place it more horizontally, while Mr. Hey pushed the head of the bone outwards and backwards with his fingers.

Some surgeons place their patient in a chair without arms, and lower than themselves. If it be the left shoulder, an assistant, standing on the patient's right side, grasps him in his arms and clasps his hands under his left axilla; the surgeon then takes hold of the upper part of the dislocated arm, under the arm-pit, with both hands, one on the outer, the other on the inner side, and places his thumbs one upon the other on the upper end of the arm. This done, he takes the patient's hand between his knees, and draws it downwards and backwards to make extension, at the same time raising the head of the bone upwards out of the axilla. When more force is required, an assistant takes the patient's arm between the surgeon's legs, holding by the lower end of the humerus, and extends steadily downwards.

This plan has been ascribed to Desault, but the credit of its invention is due to Petit. He published it in the year 1741; whereas Desault did not settle in Paris until the year 1765, nor was he admitted a member of the College of Surgeons of that city before 1776.

Wiseman described this mode complicated with a napkin, which was employed thus:—"The patient being fixed by the assistants, to whom counter-extension was confided, a towel was applied upon the lower end of the arm, (previously bandaged to prevent excoriation,) and the two ends held by the assistants, who were to extend. The surgeon then placed a compress or ball in the axilla, and over it

the middle of a girth or napkin doubled crosswise, tying the ends together in a firm knot, thus forming a sling, which he slipped over his own neck. He then tried whether the length of the sling was such as gave him the power of elevating the bone when he raised his head backwards, and having satisfied himself upon that point, he directed extension to be made. When he considered this sufficient, he raised his head upwards and backwards, thus drawing up the head of the bone, which he at the same time guided towards its socket with his hands."

Mr. Latta objects to this method, and his reasons are certainly worth consideration. After describing the process, he adds, "But in whatever manner we make the pressure, it is evident that the application of any force to the head of the bone before the extension is fully made out, can only press it against some part of the scapula, and thus impedes the reduction. If the extension is fully made there is no necessity for any force, because the action of the muscles will of itself replace the bone." In many cases this is correct, but I have seen instances where this plan has certainly appeared of service.

Mr. Kirby, of Dublin, recommends the following:—The scapula being fixed, and the bandage applied to the arm, the patient sits on a mattress laid upon the floor, and the assistants, to whose arrangement the extension and counter-extension are consigned, place themselves at his sides, sitting opposite to each other, and disposing their legs so that the soles of their feet are opposed to each other behind and before the patient. If more assistants are required, they may be increased by placing one or more at the backs of the other two, sitting with their faces towards the patient. The extension is made with the arm raised nearly at right angles with the body, and in the direction forwards or backwards, as the circumstances of the case may require. The force is to be maintained until the head of the bone has moved from its new situation, when the assistants may relax their endeavours, and the surgeon directs it towards the glenoid cavity, by pressing the elbow to the patient's side and slightly raising it.

We find in the *Archives Generales de Medicine* 1836, that M. Gerard employed the following successfully, in thirteen cases:—The patient sits down, and an assistant, placed on the opposite side, passes his arms round the patient's neck, and crossing his hands over the luxated shoulder, opposes the efforts made by the surgeon. The surgeon, standing on the injured side, places his left forearm beneath the upper part of the dislocated bone as close as possible to the arm-pit; he then approaches the patient so closely as to allow the cubital end of the dislocated humerus to rest against his own side, whilst he presses it longitudinally as near as pos-

sible to the patient. The surgeon then draws the articulation in a direction upwards and outwards, and, without using much force, the bone is reduced.

Dr. Belville, of Trenton, adopted a very ingenious mode of reducing a dislocation of the humerus in a patient who was drunk and very refractory. He placed him on the floor on his sound side, and to make counter-extension, and to confine him at the same time, he passed a folded sheet beneath the dislocated shoulder, and directed assistants to stand upon it on each side of the patient; then grasping the wrist, he made extension upwards, which he says can be done in that position with peculiar advantages, since we can lift with more power than we can pull horizontally. Counter-extension being made on the scapula by the hand of an assistant, and the usual flexions impressed upon the bone, it was without difficulty returned. A somewhat similar method has been described by Mr. Latta, only without the use of the sheet.

M. Sauler places the patient in a low chair, with his arm hanging by his side; he now seizes the elbow with one hand, and makes extension outwards and downwards, and with the other hand applied to the head of the bone, he endeavours to bring it forwards, whilst an assistant favours extension by hanging upon the luxated arm or hand.

Reduction, by placing the patient's arm over a man's shoulder, was first recommended by Hippocrates, and, subsequently, by Wiseman, Ambrose Paré, Petit, Albucasis, Verduc, and, indeed, most of the older writers. An assistant, stronger and taller than the patient, stands by his side, and places the top of his shoulder under the injured axilla; then taking hold of the patient's arm by the wrist, he draws the arm downwards at the same time that he raises himself up to his full height, by which means the patient is suspended by his shoulder, and the bone reduced. Albucasis says, that when the patient is light, it is necessary to attach something to his body to increase his weight. Ambrose Paré recommends a modification of this plan. He says, some one of competent height and strength should put the sharp part of his shoulder under the patient's armpit, and at the same time draw the arm down towards his own breast, so that the patient's body may, as it were, hang thereby, at the same time that another lays his weight upon the luxated shoulder, shaking it well, and so the shoulder is reduced. This mode of reduction was advocated by some of the best surgeons of their day. It differs in principle but little from either the knee, foot, door, ladder, rolling-pin, coulstaff, &c., but it is now so universally abandoned that it has become more a matter of history than of practice.

Hippocrates, Ambrose Paré, Wiseman, Petit, Guy de Chauliac, Therome, of Brunswick, Petro

Foresti, and Duverney, advocate the use of the coulstaff.

This consists of a long piece of wood, with a ball or thick pad in the centre. Two strong men, taller than the patient, put the ends of the coulstaff on their shoulders, and the patient placed his arm over the ball or pad, which was thus inserted into his axilla. The assistants rising up, the patient hung upon the perch, and the surgeon pulled the arm downwards, upon which the bone slipped into its place.

This was the manner in which Ambrose Paré employed the coulstaff; but in 1713, Mr. Boulton thus describes its mode of application:—The staff, being made with a bunch in the middle like a wedge, it is to be covered with a soft bolster, and the patient being placed near some post to which it is convenient to fix the pulley, the bandage must be applied a little above the elbow, and the coulstaff placed under the axilla, supported by a couple of lusty men. The surgeon stands on the other side with his hands on each side of the scapula, to push it down and keep the patient in his seat, taking care whilst extension is making to keep the wedge in its right place, lest the bone be broken or other accident happen.

Subsequent to this period, in the year 1770, White, of Manchester, reduced a dislocation downwards in a very fat patient by means of a wooden cylinder. "He seated the patient on the floor, and placed a wooden cylinder, covered with a napkin under his arm, to support the body against extension, and to withhold the inferior part of the scapula. This cylinder was held by four men, two at each end; then, standing before his patient, White put the patient's arm through a napkin, with its ends tied together, and between his thighs, and placing the napkin over his own neck and under the patient's arm, below the neck of the humerus, he directed three or four men, standing behind him, to take hold of the wrist and forearm and make extension. When he thought that sufficient, he pressed the acromion and coracoid processes down, at the same time that he raised the head of the bone by the napkin, and by this means succeeded in reducing the bone."

He recommends the cylinder, which he said his father employed for fifty years with great success, to be at least four feet long and four inches in diameter.

Le Clerc advocates this method, which Latta condemns, for the reasons which we have already considered.

In the *Gazette Médicale* for 1840, M. Mayor, of Lausanne, speaks most highly in favour of a strong stick in the reduction of dislocations of the shoulder. This is to be attached to the ends of the straps destined to make extension; one end of the stick

is to be fixed firmly, so that it cannot slip, against something solid, to make a fixed point; and the surgeon takes the other end in his hand, and either pushes or pulls it, as the case may be.

Among the ancient modes of reduction there are not any, more universally recommended by the older surgeons, than those by the door and ladder. Hippocrates was the first who mentioned these methods, which were adopted for centuries afterwards. Albucasis, in 1532, and Barbetti, in 1676, recommend the ladder, which the latter directs to be employed in the following manner:—"Take a strong ladder, at the foot thereof put a stool for the patient to stand upon, and on the uppermost step bind something round that may just fit the armpits; put the patient's arm upon it, and draw it downwards, moving the shoulder-bone to and fro; let your assistant meanwhile draw the sound arm downward, and withal thrust away the stool from under the patient, that while he is thus pendulous, the shoulder-bone may be restored." The door, which Scultetus describes "as the best of all instruments for reducing dislocation into the axilla," was employed in a similar manner. The patient stood upon a stool on one side, and placed his injured arm over the top of the door. The surgeon seized the arm and drew it downwards, whilst an assistant thrust away the stool from under the patient, leaving him suspended.

Both these plans, which have been denounced by Boyer and Latta, are dangerous as well as cruel. Unnecessary violence was inflicted upon the soft parts, whilst in several instances the bones themselves were broken. Fortunately for humanity, they are now rarely if ever employed by well-informed surgeons in the present day.

Sir A. Cooper relates the case of a gentleman who resided in the country, and was frequently the subject of dislocation of the shoulder. When this occurred, he used to walk to the first five-barred gate, put his injured arm over it and grasp one of the lower rails, then gradually allowing his body to sink upon the ground, thus reduced the bone.

CASE OF TUMOUR IN THE RIGHT FALLOPIAN TUBE, OCCURRING IN THE PUERPERAL STATE.

By J. M. WADDY, M.D.,

Senior Surgeon to the Birmingham Lying-in Hospital.

In September last, I was requested to visit Mrs. R.—, a strong, healthy woman, aged 27, and mother of four children; she was then at her usual menstrual period, but the discharge had not taken place. She complained of pain in the right inguinal region, together with the usual pains attending menstruation; her bowels were confined; there was no alteration in her appearance, in her appetite, &c., but the inguinal pain troubled her exceedingly. I represented to her that