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OBSERVATIONS ON DISLOCATION.

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(Read before the Manchester Medical Society.)

Few accidents are more common than dislocation; none involve the character of the surgeon or happiness of the patient more completely. An ill-managed dislocation, or the nature of the injury overlooked, renders the limb less useful, life less agreeable, and for ever impugns the anatomical and surgical knowledge of the practitioner. Mischief, quite as grievous to the patient, may arise from imprudence in the time and mode of reduction, for want of clear ideas on the subject. The analysis of cases faithfully recorded forms an important part of the source whence the following axioms are deduced, and it is my intention to support each doctrine by the evidence of fact. As we are this evening to discuss principles in reference to dislocation generally, the cases cited will chiefly refer to the hip and shoulder. These joints are selected from their importance, the frequency of their injury, and the formidable resistance they are capable of opposing to reduction. The practice which enables us to subdue these cases points out the course to treat all others with success.

Dislocation is the removal or displacement of articular surfaces from their natural position.

Simple dislocation may be either Complete, or
Incomplete;
Compound, or
Complicated.

It may also arise from Relaxation of the ligaments;
Accumulated synovia;
Loss of muscular power; or
Ulceration.

We will confine the question generally to dislocation where the parts immediately prior to displacement, were in a normal state, and referring to the abnormal condition, only where it is required to illustrate the present question.

The force requisite to dislocate a limb depends on the structure of the joint, the position of the axis of the limb and the state of the muscles at the moment the disturbing power was applied. When the muscles are unprepared a very slight shock will produce the mischief, but when the muscles are aware

of the approaching danger the force must be considerable. The danger is in direct ratio to the violence, and displacement is only a part of the evil; when this is excessive the injury is not confined to the ligaments, but the muscles themselves are often lacerated, sometimes severely so. Old persons are less liable to dislocations than middle-aged; the bones in advanced life are more brittle, and the force requisite to dislocate breaks them. Young children are also more liable to fracture than dislocation.

The liability of a joint to dislocation has direct reference to its structure. Where the construction of a joint is such as to admit of extensive motion, the disposition to displacement is greatest, and luxation having occurred, leaves the joint susceptible of displacement from comparatively slight causes. This state is brought on by the imperfect manner in which the reparation of the injured ligaments take place. The force displacing the bone tears the ligament more or less, and this partly depends on the direction and impetus at the time of injury. In cases where the capsular ligament is lacerated only to an extent sufficient to allow the head of the displaced bone to pass through, the smallest amount of mischief is done, but in violent injuries any quantity up to the entire capsule may be divided, placing the patient, on recovery, in the least favourable state as regards his liability to recurrence of dislocation. In as brief a manner as possible I will cite three cases to illustrate what I mean.

Jane Dakin, aged 17, was carried round an upright shaft in a mill making ninety eight revolutions in a minute, and was so injured as to die in an hour. There was a dislocation of the left os humeri into the axilla in this instance, the capsular ligament was torn across for three quarters of its entire circumference, and the tendon of the subscapularis entirely divided; there was but little extravasation of blood; she had bled profusely from the lower limbs, the legs being so lacerated and fractured that she must have lost both above the knee had she rallied.

William Sharpe, aged 26, fell down the shaft of a coal pit; the right thigh was dislocated upwards, and there was fracture of the skull. He was dead when taken up. In this instance the capsular ligament was entirely divided, as also the ligamentum teres.

Mary Irvine, a girl, fell down the hoist in a cotton

mill. She was brought to the hospital, where she died from the injuries she had received. The head of the femur was dislocated upwards. There was a fracture through the acetabulum. (The preparation was exhibited.) The capsular ligament was entirely torn away, as well as the ligamentum teres. It is probable a violent shock on the trochanter in descending the well produced the fracture, and the dislocation took place lower in the descent.

These are severe cases, and an important lesson is learned from them,—viz., the importance of keeping the patient quiet, and attending to local inflammation for weeks after. More or less of injury is always done to the ligaments under ordinary circumstances, yet dislocation may occur without it in cases where the capsular ligament is greatly relaxed, permitting partial or even entire dislocation, without lesion; these are, however, very rare cases. This relaxed state of ligament is abnormal, and we shall have to refer to it afterwards.

Extravasation of blood is another evil attendant on dislocation, and although not usually troublesome, is far from being unattended with danger. When the quantity is considerable, the difficulty of ascertaining the precise nature of the injury is proportionably increased. In extreme cases the skin is put on the stretch, and has an elastic feel. In this state it is very difficult, sometimes impossible, to ascertain the nature of the injury by examination. The direction of the axis of the limb should be observed attentively, and the position of the hand or foot; valuable information will thus be obtained, especially in hip cases.

In delicate persons of all ages, extravasation, especially if combined with much bruising, proves troublesome and dangerous, occasioning constitutional disturbance, and in extreme cases sloughing. Unfortunately the patient who has just had a limb dislocated is often the recipient of other injuries, and an accurate examination of them is of the greatest importance. This remark has especial reference to all cases where much violence has *supervened* falls from buildings, from horseback in hunting, carriage and railway accidents. In these cases it may be necessary to wait many hours before any attempt is made at reduction, for if the injury has disturbed the balance between the circulating and nervous systems, the vital power will be at a low ebb, and the shock attendant on reduction may extinguish life; and this is equally true in reference to all operations necessary for the relief of accidents. Where organic lesion is suspected, we cannot be too cautious in attempting the reduction; internal hæmorrhage may be destroying the patient, and humanity would willingly spare the dying sufferer an unnecessary pang.

In those cases where many days have elapsed, the nature of the case not having been made out, or ill-directed fruitless attempts made to reduce, difficulties of an almost insurmountable nature present themselves. Extravasation of blood is generally present; effusion

of fluid from inflammation is sure to be there; the tension is usually great; the tenderness of the surrounding parts excessive; the pain in the region of injury is of a dull obtuse kind, but greatly aggravated by any attempts at motion. The limb, which at first admitted of some little motion, is now firmly fixed; the muscles are rigid, permanent contraction having taken place. An examination under these circumstances is always limited, from the suffering it inflicts on the patient, and too often most unsatisfactory to the inquirer, who, after mature deliberation, feels incapable of deciding as to the nature of the injury. Cases of this class are occasionally complicated with fracture of the bones near their extremities, with laceration of the muscles, and injury to the vessels; this last evil is fortunately of very rare occurrence.

We now come to the important question how to treat dislocation. There are a variety of means auxiliary to reduction by extension with the hands, and their election or rejection will depend on general circumstances. There can be no question as to that plan being the best which enables the surgeon to replace the bone with the least injury to the parts, and slightest ultimate mischief to the constitution.

1. In persons of delicate fibre and feeble constitution, mere extension will very generally be all that is required, the resistance being surmounted by a very moderate degree of power, and without the aid of mechanical assistance.

2. The next in degree will be easily overcome by vomiting, excited by irritating the pharynx, or by the action of ipecacuanha or emetic tartar.

3. Severe cases require the assistance of the lancet, and bleeding to faintness is a most powerful remedy. The muscles in this state offer, in many cases, very little resistance, and the displacement is easily remedied.

4. The combination of the warm bath at a high temperature, bleeding from the arm to fainting, with emetic tartar in sufficient dose to produce full free vomiting, with depression, and mechanical aid (the pullies,) are the means available in the severe cases. These means judiciously selected or combined, and firmly persevered in, will never disappoint the practitioner. It must not, however, be forgotten that reduction is made with the view to perfect relief, and if these all-powerful remedies are carelessly or imprudently used, the condition of the patient may be worse on reduction than it would have been by the formation of an artificial joint.

In using the pullies, extension ought to be made gently, and gradually increased so as to extend the muscular fibre without injury; attempts to reduce dislocation quickly are proper only where the muscles are unprepared for the shock, and when very moderate power applied unexpected by the patient, replaces the bone. In applying the pullies, the principle for which they are used should be ever before us; they afford

any requisite amount of power, and without fatigue to the operator, maintain that power. The application of this power should be gradual—never sudden; the object is to extend, not to lacerate, the fibres of the muscles,—to apply a force ~~not~~ first so moderate, as merely to stretch the irritable fibre, and to wait till its immediate contraction is exhausted, and then again to tighten the cord, or, in other words, apply more power, again pausing when vigorous resistance is made, and waiting till relaxation again assures that further extension can safely be made. It rarely happens that any permanent mischief is done by the proper application of the pullies, but I know of no instrument more mischievous when carelessly used. Extension suddenly made, and rashly continued, may so injure the muscles and nerves, as to render the limb less useful, or entirely useless, or even strip the skin from the fascia. In this state, even if reduction be effected, the subsequent suffering of the patient, and a useless or greatly impaired limb may give rise to melancholy reflections in the patient's mind, and perchance raise a surmise as to his probable condition had it been left to nature only, and too often he will come to the conclusion that severe suffering purchased for him no immunity from mutilated usefulness.

We will now proceed to consider the cases of dislocation proper for delay, and those for immediate treatment; the former include the abnormal, the latter the normal states.

1. Cases of acute or subacute inflammation producing dislocation.
2. Dislocation from ulceration.
3. Dislocation either complete or incomplete, as in ordinary cases.
4. Dislocation in powerful persons, (or drunken.)
5. Dislocation of some standing.
6. Dislocation complicated with other injuries.

As a general rule, all dislocations from abnormal causes should be left to medico-chirurgical treatment. They are usually sufficiently obvious. Certainly a careful examiner will not be deceived. The hip-joint is liable to acute and subacute inflammation, the result of accident or disease; and this state is often complicated with effusion of fluid, lessened muscular power, and ulceration. In each of these states we are consulted, and the following is the usual outline of the case:—Master or Miss, (for they are usually young people,) has had a fall, or slipped in coming down stairs, and the parents are afraid the hip is out. On examination the hip is hotter and fuller than the healthy side, the foot turns either way in the early stage, and the limb is very little shorter. In the onset of this disease the limb is often longer; the limb is not fixed, and can be rotated outwards to some extent, as also moved in flexion and extension. When in a little more advanced state, and the limb shorter, gentle extension restores the limb to its proper length; but

on releasing the limb it again assumes the shorter position. The appearance of the patient usually indicates impaired health. On inquiry you are told he has felt occasional pain in the hip and very often in the knee; the friends have fancied him lame, but nothing of importance till the fall. Sometimes an accident can be traced back some weeks ago. Now, the fall is the result of disease; the increasing lameness hitherto unnoticed produces the accident, and from it the parents or friends erroneously date the commencement of the case. When these patients come under the notice of well-educated men, the disease is at once recognized and explained to the friends, and the necessary local and constitutional treatment at once commences. But woe to the unfortunate whose lot is with the pretender; loss of the joint, often of life, is the result.

May 10th, 1834. Henry Burrows, aged six, was brought to me; having fallen down stairs, his left hip was supposed to be dislocated. On examination I found the head of the femur resting on the upper edge of the acetabulum; the hip felt hot and inflamed; by very gentle extension it could easily be drawn to its proper place, but resumed its abnormal position when released. He was put to bed, and subjected to local and constitutional treatment. In a month he was well. He was then sent to the sea coast for a few weeks, when his general health became good. The hip has given no trouble since.

In 1835 a physician consulted me on his son's case, a boy about five years of age; he had a fall, and his right hip was swollen and painful; the head of the bone could be distinctly felt at the edge of the acetabulum. His mother told me she fancied he had limped for a month on the right foot, and had complained of pain in the outside of the knee. He was growing fast, and the occasional pain was attributed to this cause. I explained my views, he was properly treated, and in six weeks recovered. He has remained well since.

These are common cases, and frequently very troublesome; if mismanaged any amount of misery may ensue, often death. There are two preparations on the table where this state of disease was treated as dislocation from accident by a celebrated bone-setter; both, after protracted suffering, perished.

The preparation No. 20 was taken from the left hip of a very interesting girl, aged 12. I saw her twelve months after the commencement of the disease; she had met with a trifling fall, but was lame of the left foot after, and not being better at the end of a week, she was conveyed to a far-famed bone-setter; he pronounced the hip out. In this he was probably correct, but assuredly not in his practice. The limb was extended and twisted in various directions, a large plaster applied, and a tight bandage. The pain increased to agony; the doctor assured them all was right, and something was given to lull the pain; the bandage was not removed; at the end of a week the

patient was so ill the parents became alarmed, and a well-informed practitioner saw her. The bandage, &c., were removed; an abscess had formed, caries followed. When I saw her, which was about a month before she died, the limb was nearly three inches shorter than the healthy one; the knee turned inwards, and the sole of the foot rested on the tarsus of the opposite side. She had three or four sinuous openings in the vicinity of the hip; from one below Poupert's ligament the discharge was profuse. She was hectic and much emaciated. The disease from the commencement to its termination occupied thirteen months.

The preparation No. 24 was taken from the right hip of a very promising youth, aged sixteen. He was nearly falling in dancing, from slipping, and made a vigorous effort to save himself; in so doing he fancied something cracked, and he endured for a moment acute pain, but felt little more of it that evening; the next morning he was slightly lame, felt an uneasy sensation in the groin at intervals, and for two or three days was feverish. At the end of a week he was so much better that he accompanied his family on an excursion into Cheshire; there he became again feverish, walked with a limp, and had pain in the hip almost constantly, and sometimes rather severe. Unfortunately he was only twelve miles from this town, and the repute of the far-famed bone-setter was such that he was sent for, and he at once pronounced it a dislocation; this was ten days from the dance. The unfortunate youth was subjected to an extension made by three powerful men, and he was subsequently plastered and bandaged; severe pain succeeded, he spent a wretched night, and the next morning vomiting and other urgent symptoms made their appearance. A most efficient surgeon now saw him, and from this period he was well treated. In a month he was much better but lame, and always worse when he attempted to walk. He was now taken by easy stages to town, and placed under the care of a distinguished surgeon. A tumour just below Poupert's ligament now made its appearance, and he had restless nights and profuse sweats. It was now ten weeks from the commencement of the case; in two more weeks there was distinct fluctuation, and from the position of the tumour it was supposed to be psoas abscess, and an opening was cautiously made; three to four ounces of matter flowed from the aperture, which was immediately closed. He continued to emaciate, and had constant pain in the hip; country air was now recommended. The punctured part gave way, and he had a profuse discharge of ill-conditioned matter, and a probe introduced touched a denuded bone. The limb now shortened rapidly, and the knee turned inwards, and experiencing no relief he was taken home into Cheshire, six months from the first attack, by short stages, and at a very slow pace. When he had been nine months ill I saw him: he was the wreck of an amiable and talented youth, hectic, with a rapid pulse, night sweats, extensive incurable disease of the hip, and cough and tubercle. He died eleven months after the first attack.

Dislocation is occasionally the result of ulceration; it would occupy too much time to enter on the subject. There is a fine specimen on the table, taken from a

boy, aged 15. He was scrofulous, met with a fall, and in ten months you see the state amputation relieved him from.

Dislocation, the result of accident, may be defined the removal or displacement of an articular surface, from the corresponding articular surface opposed to it in its natural state. The sooner a dislocated limb is restored to its natural position the better, provided such reduction can safely be borne by the patient. Many of these accidents require little force to replace, and may be done at once by a skilful surgeon, with little inconvenience to the patient. In dislocation of the shoulder, the heel in the axilla and extension at the wrist, or the knee in the axilla, very often succeed; the former is, perhaps, better calculated for general practice.

January 26th, 1834. Richard Hodgkinson, aged 44, seen at 9 p.m., within an hour of the accident. He had fallen from the Peveril coach; the right humerus was in the axilla; he was laid on a sofa. Pushing the heel into the axilla, I made extension at the wrist, rotating inwards, and the humerus passed easily into the glenoid cavity.

September 1st, 1837. Mr. J. J., aged —, fell on the green, at Ardwick, about ten at night. His left shoulder was dislocated. I placed my knee in the axilla, conversed with him a few minutes, and when I fancied his attention was engaged, I brought the elbow suddenly towards the side; the reduction was instantly effected.

These plans, however, do not always answer our wishes, not even within five minutes of the injury.

March 18, 1828. Thomas Stringer, aged 28, Ardwick Green, a groom, was thrown from his horse. I was passing at the moment, and was requested to examine him. His home was not more than fifty yards from the place of accident, whither he was immediately conveyed. In this instance I could not move the head of the humerus by extension at the wrist with the heel in the axilla. A roller towel was placed round the affected shoulder, and secured to a fixed point, and two stout men made extension from the arm, but the power of the muscles set at nought all their efforts. I now bled him till he was faint and vomited; extension was again made, and the reduction effected without difficulty. He returned to his employ in a fortnight.

August 11th, 1832. William Carrill, aged 29, Chorlton-upon-Medlock, by trade a joiner, had fallen from the roof of an unfinished house into the cellar, four stories. He had fallen through the joices of each floor, but could not maintain his hold: this was at nine a.m. I saw him at ten; he was bruised in many parts of the body, but had received no serious injury, the shoulders being the chief grievance. The head of the right humerus was dislocated into the axilla; the head of the left humerus was dislocated on the dorsum of the scapula, just below its spine. This latter case is not very common. There was a hollow immediately below the acromion, and the head of the bone was most distinctly felt. I should say it was scarcely possible to mistake the

nature of such a case. My assistant, Mr. Thomas Hudson, now of the Ardwick and Ancoats Dispensary, assisted me to reduce them. A strong roller towel was applied round the chest, keeping the upper margin below the head of the humerus on the left side, and secured firmly to the end of the sofa; then extension was made on the right arm, but in vain, the power of the muscles firmly resisting the attempt to reduce. He was bled from the left arm till very faint, and then, after a vigorous effort, the right humerus snapped into the glenoid cavity. The roller towel was now reversed and secured to the opposite end of the sofa, and extension made on the left humerus. At this moment he was excessively exhausted and faint; we easily reduced the dislocation. He recovered without any untoward circumstances, and in five weeks resumed his usual avocations.

Dislocation in young children or aged persons seldom occurs; the force requisite to displace, usually fractures. There are, however, occasional exceptions both in age and youth.

September 9th, 1815. William Mather, aged 5, had his right thigh dislocated on the dorsum, occasioned by the shaft of a caravan falling upon it. The limb was shortened, the knee and toes turned inwards, the middle of the sole of the foot rested on the tarsus of the opposite foot; any attempt made to rotate the limb gave great pain. The pelvis was fixed by a long towel in the usual way, a wet roller was applied above the knee, and over this a tourniquet tape was buckled so tight as only to admit the hook of the pulley, which was then fixed to it. Extension was then made, and in a few minutes the head of the femur passed into the acetabulum with an audible snap; he was put to bed and was well in a week.

In aged persons extension should be made with every care; in advanced years the tendency to ecchymosis is a most serious inconvenience, and very slight pressure occasions extravasation.

August 25th, 1837. Mrs. Wall, aged 80, had a fall, and dislocated the left os humeri forwards, with fracture of the humerus about an inch from the cervix. I made extension very gently with the hands, and after a few minutes by pressing against the head of the humerus, (extension being continued,) restored it to the glenoid cavity. The forearm was placed in a sling, and a spirit lotion applied; the next day the extravasation was most extensive; a fortnight elapsed before it was safe to apply a light bandage and splint; at the end of a month the extravasation was absorbed, the limb was then put in splints, and at the end of three months she could use the arm perfectly.

Extravasation more or less occurs in middle-aged and young persons in injuries of the joints, sometimes to such an extent as to render it impossible to ascertain the nature of the case. Under such circumstances medical treatment must first subdue this evil, and then if dislocation exists it must be attended to. An explanation of this state will usually satisfy the patient and his friends; at all events never apply the pullies till

the case is clearly made out. In the state above described fractures are very difficult to detect, and the patient gets wearied with the suspense he remains in,—a dread of something very bad till the uncertainty clears away. It is always well fully to explain the nature of such cases to the friends; it removes the possibility of their justly casting reflections after. I shall just cite two well-marked instances of this difficulty.

Mary Johnson, aged 20, a stout young woman, was admitted into the London Hospital, at midnight, in the autumn of 1822, while I was a dresser to Sir William Blizard. She had fallen while running down the hill in Greenwich Park, and some dozen persons tumbled over her; she was bruized in many places, but severely nowhere, except the left hip, which was enormously swollen; the knee was turned inwards and rigidly fixed there; the limb was about an inch shorter than the other. Thirty leeches were applied to the hip, and a large hot poultice; she took the aperient house medicine. The next day, early, thirty more leeches were applied, with anodyne fomentations and poultices often changed. Towards evening the tension began to subside, but three days elapsed before any satisfactory examination could be made, and it was a month before she was sufficiently recovered to leave the hospital. This case might have been mistaken for dislocation in the ischiatic notch, for I have seen cases where there has been much extravasation and very little shortening, the toe inwards, and the limb only an inch shorter.

March 5th, 1814. Mr. Henry Jackson, aged 38. Visiting a patient in Chorlton cum Hardy, I was requested by a surgeon to see this case. At midnight he was returning home with some friends, and fell over a stone left in the way. The night being very dark, he does not recollect how he fell, but he made a vigorous effort to save himself; he felt a severe pain in his right shoulder and the right arm became useless. He was assisted to bed and after some time slept. In the morning his shoulder was very painful and much swollen, and as the swelling continued to increase, and become very painful, he sent for his surgeon, who requested my opinion at five p.m. At this period the shoulder was excessively swollen, quite round, firm, and elastic. I introduced a finger into the axilla; the head of the humerus was not there, and on slightly rotating the elbow I could perceive no crepitus. He could not move the arm. The coracoid process could not be felt; placing the left hand on the shoulder, the thumb pressing on the position occupied by the coracoid process, and the fingers on the spine of the scapula, with my right I gently raised the elbow, and by a slow up-movement detected crepitus; the inference was that a fracture of the cervix of the scapula existed. He was subjected to active treatment, and four days after, the effect of leeches, spirit lotion, purgatives, &c., had so far reduced the swelling that there remained no difficulty in ascertaining a fracture through the neck of the scapula. He was quite well on the 10th of May.

In persons who have suffered much from rheumatism,

or are of highly nervous excitable temperament, an insurmountable dread of submitting to a fair examination occasionally exists, and to such an extent does this sometimes proceed, that weeks may elapse before the patient permits an inquiry from which a just deduction can be made. In some the fear of pain, in others an invincible disgust to being touched,—yet these very patients are not slow to calumny in case their morbid feelings produce evil. Where we are permitted to be mere spectators only, we should at least be excused all blame in the result.

Mrs. Jane Maidin, aged 62, fell in the yard of one of the offices in Princes Street, on the evening of October 8th, 1843, and injured the left hip; it was late at night, she was got to bed, and I saw her about 11 a.m., the next day. There was very little swelling, but she complained of acute pain in the region of the hip-joint; she said the slightest pressure in the anterior region of the joint gave acute pain; the limb was an inch and a quarter shorter, the great toe turned outwards; she would not permit the slightest movement of the limb, and shrieked with frightful violence on my drawing the foot slightly downwards. As she was a slender and rather feeble person, I directed fomentations, and Extr. Hyoscyami, gr. iv., every three hours. She continued to use this for ten days without benefit, and then Linim. Saponis, with Tinctura Opii. After a fortnight she was no better, and shrieked as before if the limb was touched. On the 25th October, Mr. Wilson saw her with me; and before seeing the case which I gave him the history of, we made up our minds to have an examination. Mr. Wilson placed his right hand on the trochanter, I drew the limb to an equal length with the other, and rotated it freely, and afterwards gave it free flexion. The conclusion we came to was, that there was no fracture, and that the head of the femur was in the acetabulum, and the symptoms the result of contusion. She described the pain of this examination as horrible; certainly she gave ample evidence of not enduring the torture in silence. Mr. Wilson again saw her on the 2nd of December; she was then moving about on crutches, could rotate the foot moderately well, and raise it a little from the floor. Stimulating liniments have been perseveringly used, but she still continues to use a crutch, or two sticks. She has suffered very much from rheumatism; both hands are swelled and deformed from the malady, and it is probable the same diathesis exerts its evil influence in the hip.

We now come to the class of cases where great muscular power, drunkenness, or delay, present the utmost amount of difficulty. The union of all our means are equal to the task only when judiciously begun and perseveringly continued.

Jonathan Rowcroft, aged 30, was a remarkably fine man, about six feet two inches high, and one of the most powerful muscular subjects I have ever seen. He had fallen with his left arm extended, and dislocated the humerus into the axilla. He refused to be bled. Six grains of emetic tartar in warm water were given at twice with an interval of ten minutes. He was secured

to a ring in the surgery with the usual bandage to command the scapula, a roller wetted with spirit lotion was applied to the arm, and extension slowly made with the pullies. He bore the extension without a murmur, which was increased whenever the muscles relaxed, and this was continued for forty minutes, when the head of the bone slowly resumed its place in the glenoid cavity. The force employed towards the close was tremendous. He walked off as if nothing had happened, nor would he have used a sling had I not insisted upon it. The next day there was scarcely any swelling of the arm. He had no pain, but said he had been severely purged. He was ordered Lin. Saponis, and cautioned not to use the limb. In a fortnight he was well.

—, a strong burly fellow, was in the employ of Mr. Cullan, and fell in the stable about three in the afternoon; he had drunk six glasses of gin, and about six pints of beer; he was drunk, but knew what he was doing. The accident had been done about a quarter of an hour. A roller towel was passed round him to command the scapula, and fastened to a ring in the stable; another long towel was noosed round the arm above the elbow, and three powerful brewers made extension in vain. I now bled him to two pints; he became faint and vomited. We again made extension, a fourth person pulling at the wrist, and after an extension of fifteen minutes it was reduced. The next day his arm was painful, and bore ample testimony to the violence we had used. He recovered well, and went to work in less than three weeks.

I have often observed the difficulty drunkenness produces, and the best plan, as a preliminary, is to bleed, and afterwards produce vomiting with emetic tartar.

April 9th, 1838. Mr. William Crispin Watmough, a powerful man, aged 35, from the breaking of an axle, was pitched from the box of a coach, and sustained a dislocation of the right hip, a severe contusion of the right wrist and other injuries. The accident took place at Longsight. I saw him about 5 p.m., an hour after; he was very faint, and I had to send home for the pullies. Several medical men had been sent for. Mr. Barton came. The patient was placed on a mattress, the usual band secured the pelvis, and was fastened to the bed-post, the extension of the thigh being made obliquely across the bed from the opposite corner. His pulse having risen, he was bled to thirty ounces, and ten grains of emetic tartar in warm water were given in three separate parts; in ten minutes he became very sick and faint; extension was now made, and reduction effected in twenty minutes, the head of the femur passing with a distinct snap into the acetabulum. He was not my patient, but I heard from his surgeon that the hip gave no further inconvenience, and he recovered well from the other injuries.

In cases of dislocation which have existed for some weeks, either being overlooked, or from the circumstance of other injury, as fracture, the first question to consider is how far the patient will be benefited by reduction; and in case of failure, how far the condition will be made worse. The constitution, as well

as the age and general appearance of the limb, will suggest important points for reflection. In all dislocations of the hip, it is very desirable to reduce, if it be possible. In the shoulder, by far the most common dislocation is into the axilla; and the constant pain the head of the bone causes by pressing on the nerves, renders reduction imperative. When the dislocation is forwards, it is more a matter of choice with the patient. In this position an artificial joint readily forms, and the patient is not much the worse for it. The natural, however, is ever preferable to the artificial, and if you can, always reduce; for, however beautiful the process of reparation may be in forming a new joint, still the limb, though very useful, is never quite so perfect. I will now relate a very severe case of dislocation into the axilla, in an aged person, of five weeks' duration, and I was particularly induced to make the effort, as the patient declared she could not live as she was.

Mrs. Hannah Lee, aged 67, Heathcote Newhaven, near Buxton, consulted me on the 6th of July, 1834. She said she had fallen, from her foot slipping, five weeks ago, and injured her right shoulder. The limb became useless, and she had considerable pain. She sent for a surgeon. He prescribed fomentations and liniments. She was told it was not broken or out. There was very little swelling at the time, but the pain had been constant. Her health was suffering, and her remark was, I must be relieved from this pain or it will kill me. She was a very fine healthy-looking woman. I told her the nature of the case, that the head of the bone was in the arm-pit, and considerable difficulty might be experienced in reducing it. She decided to have an attempt made at reduction in the evening. The head of the humerus could be distinctly felt in the axilla; there was the usual hollow below the acromion, and the flexor muscles had begun to contract the fingers; the arm hung useless by her side. She was seated (having removed her stays, &c.) between the posts of the bed; a long towel was carried round the chest, and secured to the post on her left side; she was bled to a pint, and six grains of emetic tartar were given in ten minutes, in three doses. A roller wetted with spirit lotion was applied to the arm, and the bandage and hook secured over it; the fore-arm was bent to a right angle with the humerus, and the arm slowly raised till at a right angle with the body, and one box of the pulleys was connected with the hook, the other box being secured to the bed-post. She was now very sick and faint, and extension was slowly made till the muscles were on the stretch, and from time to time the extension was gradually increased, as the muscles were observed to give way, and this was continued for an hour. At this period the case assumed a very unfavourable aspect; she had been pulseless for fifteen minutes; the skin was cold and clammy; the respiration laborious; the expression one of subdued agony; the head of the bone had not moved. I grasped the shoulder with both hands, and endeavoured to aid the pulleys by forcing outwards the head of the

humerus with the thumb; after three or four attempts the head felt as if it were yielding to the pressure, and finally the head of the humerus was slowly restored to the glenoid cavity, without any snap or noise, the extension having been continued seventy minutes. A large soft compress was placed in the axilla, the elbow brought to the side, the fore-arm supported in a sling; she was placed in bed, and small quantities of brandy often given. Three hours after a very small thready pulse was felt at the wrist, the stomach rejected everything, and the skin was cold. Ammonia, Brandy, and Tinct. Opii, gtt. xl.; the stimulants to be continued during the night. Bags of hot bran were applied to the stomach and feet. The shoulder was not much swollen, but some extravasation was going on. It was kept covered with cloths dipped in warm spirit lotion. On the 7th the pulse was firmer; skin warm; stomach irritable. The stimulants were continued, with sago, &c. The shoulder was easy, but much discoloured by extravasation, which was very extensive below the clavicle. She was much better on the 8th, the shoulder easy, and no further extravasation. From this time she gradually improved, and was sufficiently well to return home on the 19th. Mr. Thomas Fletcher, of Longsight, an intimate friend, was present at the reduction, saw her six months after in Derbyshire; she was in good health, and the arm as useful as before. She is still living in the enjoyment of excellent health.

I was requested to meet Mr. Harrison, in Withy Grove, to see a case of unreduced dislocation. We were joined by Mr. Wilson; this was in the evening of the 19th of January, 1840. Mr. Marks, aged 60, had fallen down ten or twelve steps, going into the warehouse, on the 23rd of December, 1839. The gentleman who first saw him suspected a fracture through the trochanter and applied splints, confining him to his bed on his back, &c., &c. We met and removed the dressings. The head of the femur was distinctly felt on the pubis. He was bled to a pint, and Mr. Harrison sent to a druggist for ten grains of emetic tartar. It was mixed by an attendant in a tumbler of warm water, and one-third part given every five minutes. In twenty minutes he was not sick, and we sent for ten grains more, and received for answer, he had sent a drachm in mistake. On the announcement of this horrible blunder his fauces were irritated with a feather, and he drank largely of warm water, and vomited freely half an hour after he took the first dose of the antimony. The extension now commenced, and in forty-five minutes the head of the femur passed quietly into the acetabulum. An ounce of Infusum Cinchonæ was now ordered every hour. In the morning he was better, and seemed to have escaped the ill effects of the antimony, and no bad symptom made its appearance after. I saw him after a lapse of six months, he walked well but used a stick, and said his hip felt weak.

Mr. Robert Garnett, aged 45, Preston, stated that he had been injured by the upsetting of a coach near Newcastle, in Northumberland, three weeks previously, and that his right arm had been broken near the shoulder joint. He was attended by a surgeon, who

put the arm into splints. On arriving at his residence in Preston, he fancied the limb did not improve, and he came to Manchester to consult me. On removing the splints and dressing a dislocation forwards was distinctly seen; there was very considerable swelling at the time of the accident, and I fully explained to him the almost insurmountable difficulty of ascertaining the true nature of the accident. Under such circumstances, I advised him to use the arm gently, to rub the shoulder with Lin. Saponis, and to take a liberal diet. In four months he could use the arm fairly, and eight months after he had nearly as much use as before, a new joint having been formed. Neither the age nor time were unfavourable to reduction, and I have no doubt it would easily have been effected, but grave reasons prevented me making the attempt. His constitution was a delicate one; on a former occasion a wound of the thigh healed with great difficulty. There was cough, and tendency to tubercle. Had the humerus been in the axilla, pressing on the nerves, he must have had the limb reduced, and the result would have been doubtful. As it was in so favourable a position for his future comfort, I thought it right to adopt the palliative plan.

There is one dislocation sometimes very troublesome to reduce, I mean dislocation of the last phalanx of the thumb; were a case of this kind to present itself, for as yet no case of this nature has ever foiled me, I should not feel inclined long to continue the extension, but proceed to divide the tendon at such a distance as not to endanger an opening into the displaced parts. My reason for this opinion is the following case:—

Patrick Murphy, aged 30, a joiner, fell down some steps with his basket of tools in his hand; unfortunately his left hand went into the basket and was severely cut; he had a dislocation of the last phalanx. It was easily reduced, for the incised wound included a division of the flexor tendon, about the middle of the phalanx next to the metacarpal bone. He was told the thumb would in all probability be stiff as far as related to the last joint. The wound healed by the first intention, and six months after I saw him accidentally, he immediately came and shewed his thumb, which he said he could use as well as ever. Certainly he had perfect extension and flexion.

In this metropolis of commerce we meet with dislocations complicated with every kind of injury, and under every variety of forms, from accidents in the manufacturing and mining departments and railways. In these cases it often happens that the dislocation is a trifle compared with the other injuries. I will cite one case to explain what I mean.

August 1st, 1823, twelve at noon. Esther Smith, aged fourteen years and a half. The accident took place about ten o'clock, at Chowbent, and she arrived at the infirmary, Manchester, at noon, where I then resided as house-surgeon. The left arm torn off near the insertion of the deltoid; oblique fracture through the middle of the right humerus; dislocation of the elbow, radius and ulna, outwards and

fracture of the radius and ulna through the middle of the forearm. First I secured the artery high up, then reduced the dislocation, then did up the fractured humerus in splints, and afterwards the forearm. At this moment Mr. Hamilton came to my assistance, he pared the torn ends of the muscles, and shortened the projecting bone. The edges of the wound were brought together by straps of plaster, and an opiate given. This case did well, and she returned home in a few weeks in good health. I heard of her some years ago; she then held a respectable situation in the counting-house of the establishment where the accident happened.

It is unnecessary to relate any other examples of complicated injury in my professional career of upwards of a quarter of a century; many have occurred, but not always with so favourable a termination.

SHORT NOTES OF THE OPINIONS AND PRACTICE OF THE LATE JOHN PEARSON, ESQ., F.R.S., ON SYPHILITIC DISEASE.

By W. S. OKE, M.D., Physician to the Royal South Hants Infirmary.

TO THE EDITOR OF THE PROVINCIAL MEDICAL AND SURGICAL JOURNAL.

SIR,

It is my intention to send to the *Provincial Medical and Surgical Journal*, as regularly as I can, a series of short notes of the opinions and practice of the late Mr. John Pearson, F.R.S., in syphilitic disease; and I entertain the hope that they may not be altogether uninteresting to your readers.

These notes have been abbreviated from a MS., which, I believe, for the most part may be relied upon.

The late Mr. Pearson practised surgery in London, at the latter end of the last, and during a considerable part of the present century; he was a Fellow of the Royal Society; Senior Surgeon of the Lock Hospital and Asylum; Surgeon to the Public Dispensary, &c. He was also the author of several valuable and practical works, and a lecturer on the principles and practice of surgery.

So extensive were his opportunities of observing the phenomena of syphilitic disease, both in the Lock Hospital and in a large private practice, and so matured was his judgment by such a wide range of observation, that his opinion was greatly sought after, and on any doubtful point connected with this subject, was considered as final by the majority of British surgeons.

Sir Benjamin Brodie, in his "Lectures illustrative of various subjects in Pathology and Surgery," says, "I am much mistaken if the mercurial treatment of syphilis, as employed by the late Mr. Pearson, during the greatest part of his life, was not as nearly perfect as possible."

It was evidently the intention of the late Mr. Pearson, to have given to the public a work on lues venerea, as may be seen in a note at the foot of the seventh page of the introduction to his "Observations on the effects