

black smoke is given off, and the compound is completely decomposed. On quinine iodate the strongest sulphuric acid produces merely a change from a white to a very light yellow colour; and the addition of water forms a colourless solution. At 100° Centigrade, quinine iodate undergoes slight decomposition.

A brief reference to an iodate of quinine is made by Serullas, but of bromate of quinine no account could be found in the books or journal. It may be prepared by precipitating barium bromate by sulphate of quinine, and evaporating the solution separated from the barium sulphate, also by neutralising bromic acid solution with quinine. It occurs in silky minute needles, very soluble in water, spirit of wine, and dilute acids, except nitric acid. It is fully as active in its physiological effects as the iodate. It may be prescribed as a mixture, in pills, or in the granular effervescing mixture of the Pharmacopœia. It is soluble in 250 parts of water. Soon after the administration of the iodate of quinine, iodic and hydriodic acids appear in the urine. The quinine also appears, but arrives somewhat later.

## DORSAL DISLOCATION OF THE LEFT HIP (FOUR MONTHS); REDUCTION BY MANIPULATION.

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INSTANCES of the successful replacement of the head of the femur after its sojourn for several months on the dorsum ilii are sufficiently rare to justify the narration of a case. Although Sir A. Cooper's dictum (which in the case of the hip fixes the period at two months, beyond which attempts at reduction are impracticable) is generally adhered to, still examples are not wanting in which reduction has been effected after the lapse of a much longer period. Thus, Bigelow cites cases where reduction was accomplished six and eight months after the accident. It is true the difficulties inseparably associated with the efforts to reduce old dislocations are very great and often insurmountable, and the attendant risks always considerable, yet the attempt is rendered necessary because the utility of a limb is seriously impaired by the presence of the unreduced bone. In the case which is narrated below the restoration of function after the replacement of the femur was fairly good. This shows that a complete separation of the joint surfaces for many weeks is not necessarily followed by much structural change. The free mobility of the head made it tolerably certain that the ligamentum teres was severed, and the capsule freely torn—an amount of destruction of soft parts which we should expect to be followed by, at any rate, some deformity of the head. The ease with which the head regained the acetabulum was a source of surprise and satisfaction. The movements presently to be mentioned sufficed to bring the displaced bone into its natural situation, and this occurred without the employment of any force. When the limb was flexed at the knee, and rotated inwards, the head readily escaped from the acetabulum, but was again replaced by movements similar to those employed in the first instance. This ready escape of the head may be taken as an indication of, possibly, two conditions: the free severance of soft structures, and the partial obliteration of the cup-shaped acetabulum. That this latter condition really existed is highly probable, and is rendered almost certain by the lengthening of the limb, which was found after the reduction. It is important to note the position of the patient immediately before the accident. He tells us he was stooping; that his legs were apart (in a position, then, of abduction of the limbs, and flexion of the trunk on the thighs), and that while in this state he received the blow which occasioned the dislocation. This will tend to confirm Mr. Morris's observation respecting the mode in which dorsal dislocations are produced. The history of the case may now be related:—

Wm. H—, aged twenty-four, was admitted an in-patient of the Infirmary on the 27th January, 1882, and furnished the following history. On the 8th of October, 1881, he was playing at football, and whilst stooping with his legs apart he received from behind a severe push which threw him to

the ground. On attempting to stand the left leg was discovered to be very much inverted, and a total inability to walk immediately followed. An irregular practitioner in the shape of a "horse doctor" manipulated the injured limb, and informed the patient that the dislocation had been reduced.

*Condition on admission.*—The left lower extremity is strongly inverted and shortened to the extent of two inches. It permits of rotation inwards, and inversion; but rotation outwards and eversion are impossible. The trechanter major is very prominent and nearer to the anterior superior spine of ilium than that on the other side. The head is easily discovered on the dorsum ilii, where it is very superficial and freely movable. Syme's distinctive sign of dorsal dislocation is absent, for the thigh can be made to touch the bed without any arching of the back.

Jan. 30th.—The patient was anæsthetised, and the head of the femur returned into the acetabulum by the following movements. The ankle of the dislocated limb was grasped with the right hand, while the left rested on the knee. Then the thigh was flexed upon the abdomen, and the limb rotated inwards to a slight degree. This was done with the object of more effectually disentangling the head. Immediately afterwards the limb was abducted, rotated outwards and extended, when the head regained the acetabulum with a sound which was audible to the students present. It was now discovered that the inversion and the other symptoms had completely disappeared, and that a quarter of an inch lengthening was substituted for the previous shortening. Redisplacement could be readily made by flexing the limb and rotating it inwards. To remove any chance of the dislocation recurring a Liston's splint was applied.

Feb. 6th.—Splint temporarily removed; a certain amount of motion in the hip-joint discovered; splint reapplied.—14th: Felt moulded to the hip, and the limb encased in a plaster-of-Paris bandage carried upwards from the foot. Hip-joint made secure by a pelvic spica.—16th: Patient discharged.

April 11th.—Readmission. Plaster bandage taken off. Hip and knee-joints found to be stiff. Leg lengthened and somewhat abducted.—14th: Patient again placed under the influence of chloroform with the view of breaking down adhesions. The different movements naturally enjoyed by the hip can be performed by the expenditure of some degree of force. Both the hip and knee to be freely rubbed with soap liniment and passive movements to be employed twice a day. By these means motion in the hip-joint was still further improved, so that by the time the patient was finally discharged, on April 18th, the usefulness of the limb was almost completely restored, and very little inconvenience in walking experienced.

## A NEW MEDICAL ELECTRODE.

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IN the scientific employment of electricity in medicine, and more especially for the purposes of electro-diagnosis, in addition to the currents from different batteries, certain accessories are essential. There must be: 1st. An electrode of suitable size and shape. 2nd. A method of graduating the strength of the current, by means of which the feeblest or the most powerful efforts of the battery may be obtained, or any intermediate grade that may be desired; this, moreover, must be effected gradually so as to avoid unnecessary sudden changes or shock. 3rd. A means of opening and closing or of interrupting the current. 4th. A mode of alternating or reversing the direction of the current.

Many of the batteries supplied for medical purposes do not possess all these accessories, which are absolutely essential for scientific investigation. Even those which supply these necessities are open to the objection that in delicate diagnostic investigations the attention of the observer is divided between the electrode with which he makes his experiments on the patient and the element-board upon