

Special risks of danger, even to a fatal termination of the case, attend those examples of separation of the epiphysis in which irregular stripping away of the periosteum from the shaft of the bone occurs, the epiphyseal end adhering, and a periosteal sleeve, with muscular attachments being loosened from the subjacent bone. Museum specimens of this kind of injury are rare, notwithstanding they are not infrequent, but when produced they rapidly end in death. Suppuration, too, which in fractures of bone rarely occurs, may attend the separation of epiphyses, being in such case due to the separation of the periosteum.

In adults dislocation of both bones of the forearm at the elbow joint is not uncommon, but among children it is exceedingly so; in this class of patients that form of injury which is described as a dislocation of such nature consists in the clean separation of the epiphyses, which is encouraged in the elbow-joint by the profusion of ossifying centres found in that region, and which, when it is seen, is usually said to be a dislocation backwards. The amount of displacement produced by such an accident depends on the position assumed by the bones affected in relation to the joint, and the possibility of the confusing appearances that may be seen ought to be an effectual guard against the issue of a hasty or unwarranted utterance respecting the absence of any fracture. The ease with which the displacement of the epiphyses can take place in children is the main reason why so-called dislocations of the elbow joint are so commonly seen in them, and the factor is found in the low position of the coronoid process, the principal opponent to backward dislocation in young subjects. This process is, indeed, practically an epiphysis itself at this age, being of soft, yielding structure, and being easily broken down.

In treatment of separation of the epiphysis at the elbow in children, the plan most successfully practiced is that of fixation on a moulded splint adjusted to the back of the limb, which is to be bent into a position in which the forearm is at right angles to the upper part of the limb. The splint is to extend high up the arm, and in fastening it strapping should be employed, a pad being so adjusted as to bring steady pressure on the upper part of the humerus. All the steps of the operation should be carried on while the patient is completely under the influence of an anæsthetic, the free and invariable use of which was strongly advocated by the lecturer in these cases. The pressure, moreover, thus applied to the lower end of the humerus, must be considerable in order to secure the desired result, and should not be omitted on account of the swelling which in some cases will be found present to some extent, being occasioned by the tearing injury inflicted on the periosteum. In a recent case seen by Mr. Hutchinson, neglect of these precautionary details had resulted in ankylosis of the

joint, and it is desirable that the practitioner should always be guarded in his prognosis of a recovery without stiffness of the elbow in all such cases. In separation of the lower epiphysis of the radius, it is common for a mistaken diagnosis to be made, the injury under such circumstances being assigned as dislocation of the wrist joint. One of the best examples of the condition so produced is to be found in a preparation in the London Hospital Museum, and it is highly important to recognize the nature of the lesion whenever it occurs. As a rule, there is only an incomplete displacement of the epiphysis, but one case at least is on record in which the part was entirely separated. The disunited parts should be placed in apposition, under an anæsthetic, as a first step toward treatment, and then the limb should be put up in the ordinary way.

In proof of the infrequent occurrence of dislocation of the wrist, Mr. Hutchinson said he had never seen a case himself, and those injuries which were described as such dislocations invariably turned out to be, in the young, separation of the epiphysis, and in the adult, fracture. Likewise he questioned the existence of the so-called subglenoid dislocation at the shoulder, and in every case he had examined with a view to testing the existence of such a deformity he found it to be one of subcoracoid dislocation, the certainty of which can be made clear by resort to accurate measurement, by which means the absence of any lengthening of the limb, a condition which must necessarily occur to the extent of one and a half or two inches in subglenoid dislocation, is at once rendered apparent. To Professor Flower is due the credit of drawing attention to the facts here explained, and which imply that what has been called subglenoid is in reality subcoracoid dislocation. Dr. Howe had also, previously to Flower's observations, noticed that lengthening must necessarily follow on subglenoid dislocation, but in spite of all the correction the error received, a well-known manual of surgery continues in its latest edition to perpetuate it, and by means of illustrations depicts the two forms of displacement, showing the limbs as being of equal length in both forms of injury.

Among children, displacements of the elbow may be treated with very favorable prospects of obtaining good results, but the case is very different when the patient is advanced in years, for although in them reduction may be completely effected without fracture, still there is ever present danger of subsequent development of chronic rheumatic arthritis in the joint, this being an almost invariable sequel in such cases. Different opinions, however, have been expressed respecting the order in which the two events occur, whether, that is, the dislocation is primary, but the lecturer decidedly averred that there can be no question that such is the fact. In