

and then returned into its plaster splint. Within a week active exercises may be begun. Massage is most useful in such cases. In the past, it has been the custom to leave the plaster of Paris intact for some weeks, but surgeons now have more generally adopted massage as a curative agent of prime importance in many of even the acutest lesions, such as fractures, ligamentous ruptures, and inflammatory exudations.

The secondary treatment indicated is the application of a well-fitting rigid brace of the class suggested by Whitman, of New York, and made from a cast taken of the foot early after correction. This must be used for some time in conjunction with the treatment suggested for simple weak feet.

(d) *Bony Adhesive Type*.—The diagnosis in these cases is made by the history of a long-standing deformity which is more or less irreducible even by wrenching under anaesthesia. In the hands of Painter,\* of Boston, excision of the scaphoid has been followed by excellent results in such cases.

The routine treatment suggested is an attempt under an anaesthetic, to manually or instrumentally better the position; failing in which the scaphoid may be excised with the object of decreasing the length of the inner border of the foot. This excision is to be followed by wrenching with the Thomas wrench. The feet are then kept in the position of extreme correction in plaster of Paris for at least six weeks; subsequently a rigid foot brace is employed in conjunction with routine methods for strengthening the feet.

In conclusion, I would say that pain should be our indication for operative interference. Absolute sinking of the arch without pain rarely calls for interference.

#### DEFORMITIES DUE TO THE PARALYSES.

We shall consider here only the most common forms of paralyses and the deformities resulting.

*Brachial, Birth or Obstetrical Paralysis*.—Perhaps the most frequent cause is traction, which may stretch or rupture a part or parts of the brachial plexus. The fifth and sixth nerves are the most frequently affected, but the whole plexus may be involved.

The whole arm of the affected side is held in a characteristic attitude. There is internal rotation and adduction of the arm and forearm, extension of the forearm on the arm, and the hanging of the arm due to inability to raise the shoulder. There is commonly a paralysis of the deltoid and supra-spinatus; the biceps, brachialis anticus, supinator longus, and the supinator brevis.

The unopposed action, then, of the following muscles is responsible for the following deformities: The unopposed action of the

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\* Vide *Boston Medical Journal and Surgical Journal*, August, 1905.