

The depression was found to be oval in shape and about one and a half inches in its longest diameter. It was outlined at its margin almost all round by a fissured fracture of the outer table, and from this fissure numerous lines radiated to the centre, which was about one-half inch below the general surface of the skull. There was a small amount of brain substance oozing from the centre of the depression. One of the small triangular pieces of bone was removed, and through the opening thus produced the remaining fragments were sprung back to their normal level. The fragment first removed was then replaced. The whole wound was then closed by horsehair sutures, a small drain of iodoform gauze being placed in the original wound.

The temperature the next morning rose to 102 1.5 and pulse 124. By night the register was 101 4.5 and 114. Next morning 99 and 94. The subsequent history showed rapid recovery. The wound healed throughout by first intention, but the paralysis of the arm was recovered from very slowly. In about one month, however, all the motions were recovered except extension of the wrist and of thumb and fingers, and these motions are still imperfect, though gaining slowly.

The flexors of the hand are also weak. At present he is able to extend the wrist while the fingers are flexed, or to extend the fingers while the wrist remains flexed; but not to perform both movements at once. The reason for this, apparently, is that the extensors are incapable of successfully overcoming the tonic contractions of the flexors, while the latter are put upon the stretch by extending both the wrist and fingers.

The treatment has consisted in exercise, in voluntary movements, massage, electricity, and the functions are still slowly improving.

It is evident that the portion of the cortex that was destroyed is the area which normally presides over the movements of extension of the wrist and fingers. Horsley and others have shown that while there are certain well defined areas which control certain movements, there are frequently outlying areas which seem to have a subsidiary influence, and may become functionally in the event of destruction of the main centres. In this case it is to be hoped that these subsidiary centres may prove adequate to the performance of the duties thrust upon them by the destruction of the main centre. This patient has youth in his favor, and it is certain that the powers of adaptability are greater in immature than in fully matured brains.

In the meantime, it is important to maintain the nutrition of the nerves and muscles by electricity and massage.