canal. The nerve was much thickened. The spicula was chiselled away and the bands broken down, thus freeing the nerve.

The bullet was nowhere in the field of operation, and I believed it to be imbedded in the bone.

Wound was closed by deep cat-gut sutures and superficial silk-worm gut. No drainage. As soon as patient recovered from chloroform, he could feebly raise his wrist and extend his fingers. Was discharged June 17th, with good use, although weak, of extensors.

Saw patient again on December 25th, seven months after operation, and he had fully recovered the use of his arm.

FRACTURE OF THE ULNA WITH DISLOCATION OF THE HEAD OF THE RADIUS.*

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J. L., a young man, aged 26, while sparring on the ice, February 11th, fell forward on the palm of his hand. On examination I found the ulna fractured at the junction of the middle and upper thirds, with dislocation forwards and outwards of the head of the radius. The lower fragment was directed in, preserving its relation with the radius, which was directed outward above. When the elbow was extended, the upper fragment remained somewhat flexed, while adduction or abduction of lower fragment caused the head of the radius to glide out and in.

Traction was made on the wrist while the elbow was flexed, and the head of the radius pressed into position. It was noticed that the radius assumed the best position while traction was made and the elbow extended. Right-angled splints were applied midway between pronation and supination.

In twelve days it was taken down, and while the fracture was satisfactory, the dislocation was not improved. Chloroform was administered, and an attempt made at reduction; but as only traction in the extended position retained the head, it was put up in that position.

A week later the upper fragment of the ulna was flexed, as was to be expected, and the radius in a fairly good position. The right-angled splints were applied.

Four weeks from the date of the injury the radius would glide freely in and out, but never assume a quite normal position. Under chloroform, the joint admitted of all the movements. The muscles supplied by the posterior interosseous nerve were found paralyzed, and gave the reaction of degeneration. The radial was normal.

In reviewing the literature on this complication, I find it has been made the subject of monographs by Malgaigno, Grenier and Dörfler. Malgaigno saw four cases and Dörfler collected nineteen. Five of Dörfler's cases were caused by direct violence, and from experiments he inferred that the fracture is always the primary injury, and always produced by direct violence.

Gerdy describes a case in which the patient declared he fell upon his extended hand, and Stinson one in which he believed the violence to be indirect. When the shaft of the ulna is alone broken, Hamilton says it is usually by a direct blow, and that he never saw an exception to the rule.

Hamilton saw ten cases in which the dislocation of the radius was not recognized, and Malgaigno formulated the following warnings:

1. In any fracture of the ulna alone, look for a dislocation of the radius.

2. In every fracture of the forearm in which the swelling extends above the elbow, remember that simple fracture is rarely accompanied by so much swelling and carefully explore the articulation.

Of thirty-six cases of fracture of the ulna seen by Hamilton, twelve were complicated with dislocation of the radius.

To reduce, Hamilton advises an assistant to grasp the condyles of the humerus, and while traction is made on the wrist, the forearm is slightly flexed on the arm and the head of the radius forcibly pushed back into its socket.

* Patient presented and paper read at a meeting of Toronto Medical Society, March 21st, 1895.