

tissue with blood greatly obscuring the ordinary guides to the vessel. The ligature of the carotid had no effect in reducing the hemorrhage. We then decided that, judging from the rate at which the blood flowed whenever the pressure was relaxed, any attempt to enlarge the wound and catch the bleeding vessel would be fatal in a few seconds, and that our only recourse was to compression within the wound. Accordingly two large-sized fine Turkish sponges, which had been prepared but had never been used, were taken from corrosive sublimate solution and their interstices filled with iodoform. Taking one of them I rolled it up tightly in a somewhat conical form, and introducing it through the skin wound, pushed it firmly back to the base of the skull along the track of the wound; the second sponge was then introduced on top of this and a Lister dressing firmly applied to the neck. This completely arrested the hemorrhage—a little blood-stained serum only finding its way through the dressing. The patient was now very weak and pale, and almost pulseless. He could not swallow except with the greatest difficulty, could not speak above a whisper, and his right pupil was very much contracted. He soon rallied, however, and in a day or two could swallow very well, although his voice has never been restored. A moderate degree of ptosis of the right lid was observed the following day. It probably existed from the first, but was overlooked in the presence of so much graver symptoms. The dressings were changed on the fourth day and again on the ninth day, when the outer sponge was withdrawn without difficulty, and without being followed by any sign of hemorrhage. On the sixteenth day after injury the dressings were again removed. The external wound was lengthened and enlarged by an incision backwards from its posterior border, and the larger

part of the remaining sponge, which was firmly held in the wound, was cut away with curved scissors. The wound was then irrigated and stuffed with iodoform gauze, and a gauze dressing applied. It was again dressed on the twenty-first day, and again on the twenty-eighth day after the accident. At this latter dressing the sponge was found to have become detached and to have worked its way out nearly to the surface of the wound. It was easily removed. The subsequent progress of the case was uninterrupted, and the wound is now (seven weeks after the accident) almost completely healed. There is still a little sinus leading down to the ligature which was applied to the carotid artery; the ptosis remained unchanged, as well as the contraction of the right pupil. The voice has slightly improved, but is still whispering and low pitched, and he carries his head towards the injured side. The latter is probably due to the contraction and stiffness about the wounds.

*Remarks.*—There can be no doubt, I think, that the source of the hemorrhage was a wound of the internal jugular vein close to the base of the skull. The paralytic symptoms also show clearly that the sympathetic and superior laryngeal nerves were severed. The partial ptosis may also be explained by the sympathetic nerve lesion. It seems scarcely credible that, under the circumstances, this patient did not bleed to death on the spot. This may be explained, I think, by the fact that the wound was a valvular one, and when he altered the position of his head so as to stand up and look straight before him, the sternomastoid muscle was interposed between the bleeding vessel and the wound in the skin so as to completely close the latter, and thus the flow was for a time arrested. The behavior of the sponges is very instructive, and shows