

possible to the stylo-mastoid foramen in order to bring as long a segment of degenerated nerve within the sphere of influence as possible. The simplest plan in regard to the spinal nerve is to make use of the branch to the trapezius, which can easily be isolated at the spot where it enters the body of the muscle through which it has to pass. Some surgeons practise the anastomosis end-to-end, others lateral anastomosis, as, for instance, in the method adopted by Ballance, who splits the sheath of the spinal nerve by a small incision, into which he inserts the end of the facial. This procedure has the advantage of avoiding the paralysis of the mastoid and trapezius, and experience does not show any subsequent dragging thereon. Dr. Faure selected the spinal nerve in preference to the hypoglossus and glosso-pharyngeal, on the ground that it necessitated less manipulation. It must, however, be borne in mind that the destruction of the spinal nerve necessarily entails atrophy of the shoulder muscles with consequent paralysis. Moreover, the spino-facial anastomosis, when successful in restoring contractility of the facial muscles, determines synergical contractions in the shoulder, so that voluntary or involuntary contraction of the shoulder muscles is associated with corresponding contraction on that side of the face. Now the contraction of the facial muscles is, so to speak, the representation of the mental state, and it is obvious that under these circumstances any accidental movement of the shoulder muscles may give the face an expression quite out of keeping with the then mental state of the subject.

This drawback has led certain surgeons to prefer the hypoglossal in spite of the fact that its greater depth renders the operation much more difficult; moreover, the nerve is much smaller. A point in favor of the choice of the hypoglossal is that its cortical centre is much nearer that of the facial than that of the spinal; moreover, the medullary protuberances of the facial and hypoglossus are linked up by the posterior longitudinal tract. It follows that the re-education of the facial muscles, if this be possible, ought to take place much more readily with the hypoglossal than with the facial. Opinions differ as to the advantage attending this special method. Korte, for instance, considers the hemilingual atrophy and dysphagia which have been noted to be much more troublesome than the atrophy of the shoulder; but Bernhardt and Ballance both appear disposed to prefer the hypoglossus in future.

In estimating the value of surgical intervention in the treatment of facial paralysis from the twenty-two cases so far recorded, we must, in fairness, eliminate the "negative cases," that is to say, cases in which the operation is still too recent, and those in which, for special reasons, there was no justifica-