

that the nerves are also affected in some of the cases of Volkmann's contracture. For instance, we see in some of the cases reported loss of sensation corresponding to definite nerve areas, while in others there have been trophic ulcers. In several cases where the reaction of degeneration was found, it is highly probable that on the one hand there is pure ischæmic myositis, and on the other hand ischæmic myositis plus peripheral nerve palsy, producing complete or partial reaction of degeneration.

Cases of anterior poliomyelitis, infantile cerebral monoplagia, and functional disease may with care be excluded.

Prognosis: Volkmann gave these sad cases an almost absolutely bad prognosis. Mr. Ward²⁰, however, mentions that he has never seen or heard of any adult with Volkmann's contracture due to and persisting from injury in childhood. Many mild cases have been cured by long continued massage, active and passive movements, and electricity. In the majority of cases some operation is necessary to allow of a more extensive range of movement for the diseased muscles and correcting the deformity at once will enable the treatment by active and passive movements to be thoroughly carried out. It is too much, however, to hope for a complete recovery of the affected muscles, for many of the fibres are permanently lost and the movements of those that remain are greatly hampered by the surrounding fibrous tissue.

Operations: Stretching or tearing the contracted muscles under an anæsthetic or dividing the muscular bellies, have been proved useless. Multiple tenotomies cures the deformity, but involves a permanent disability. Two methods of operations have been carried out with success, tendon lengthening by the splitting method, and secondly, excision of portions of the radius and ulna and wiring the fragments together. Good results have followed both methods of procedure. The time involved in lengthening ten small tendons and the frail nature of the same renders this operation a disadvantage in small children and, moreover, it does not correct the troublesome fixation of the hand in pronation.

Excision of portions of both bones of the forearm was first practised in England by Raymond Johnson and has since 1898 been performed many times. Its only disadvantage is the danger of non-union of the fragments. It is an excellent method of at once correcting all deformity and takes much less time than tendon lengthening.

In conclusion, I wish to thank Dr. Primrose, under whose care this boy was admitted into hospital, for the privilege of presenting this case to you and also to Dr. C. R. Dickson, who kindly tested the electrical reactions of the muscles for me.

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