Dyskinetic cerebral palsy

The dyskinetic subtype of cerebral palsy is difficult to manage, and there is no established gold standard for treatment. External rotation of the shoulder(s) is often managed nonsurgically using injections of botulinum toxin A into the external rotator muscles. This article reports a new surgical technique for managing external rotation when botulinum toxin A treatment is not sufficient or possible.

Six patients with dyskinetic cerebral palsy underwent denervation of the infraspinatus muscle and release of the posterior part of the deltoid muscle. Postoperative questionnaires were given to the patients/caregivers, and video recordings were made both pre- and postoperatively. Preoperative and postoperative Assisting Hand Assessment was possible in only 1 case.

Five patients were very satisfied with their outcome. Four patients' video recordings showed improvement in their condition. One patient developed postoperative complications.

The results indicate that denervation of the infraspinatus muscle and posterior deltoid release can be an option for patients with dyskinetic cerebral palsy to manage external rotation of the shoulder when other treatment alternatives are insufficient [1].

There might be a close and reciprocal relationship between the baseline levels of impairment of motor and intellectual function with regard to the effectiveness of comprehensive rehabilitation (CR). Early intervention is important to gain a good outcome in children with CP [2].

1)
Blaszczyk I, Granström AC, Wiberg M. Denervation of the infraspinatus and release of the posterior deltoid muscles in the management of dyskinetic external shoulder rotation in cerebral palsy. J Neurosurg Pediatr. 2015 Jan 12:1-7. [Epub ahead of print] PubMed PMID: 25580511.
2)
Zhang H, Zhang B, Jia F, Liang D, Li H, Chen Y, Yang L, Ge P, Liang J. The effects of motor and intellectual functions on the effectiveness of comprehensive rehabilitation in young children with cerebral palsy. J Int Med Res. 2014 Dec 8. pii: 0300060514558897. [Epub ahead of print] PubMed PMID: 25488951.