Denervation of the infraspinatus and release of the posterior deltoid muscles in the management of dyskinetic external shoulder rotation in cerebral palsy

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The dyskinetic subtype of cerebral palsy is difficult to manage, and there is no established gold standard for treating the condition. External rotation of the shoulder(s) is often managed non-surgically using injections of botulinum toxin A into the external rotator muscles. I present a novel surgical technique designed to manage 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.

Biography
Izabela Blaszczyk received her MD-degree from the Medical University of Silesia, Katowice, Poland in 1992. Following a 5 years residence in the Orthopaedic Department in Gorzow Wielkopolski, Poland and 2 years in Hand Surgery Department at the University Hospital of Louise Pasteur, Strasbourg, France, she became a specialist in hand surgery (FESSH European Diploma 1999). Since 2000 she has a permanent position at the Department of Hand and Plastic Surgery, University Hospital of Northern Sweden, Umeå. Her special interest is the treatment of spasticity in the upper limb of children and adults with CP, stroke or brain injury.

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