Preface

Pediatric Upper Limb Spasticity
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It is my pleasure to serve as guest editor of this issue of Seminars in Plastic Surgery on pediatric upper limb spasticity. This patient population can be overwhelming for the inexperienced or first-time surgeon because they present with a constellation of upper limb deformities often in conjunction with other medical problems. As highlighted by the diverse backgrounds of the selected authors, treatment of upper limb spasticity relies on streamlined, multidisciplinary care. It is critical for everyone on the management team to speak with one voice when grading and quantifying the severity of the upper limb deformity. As with management of any other upper extremity condition, it is important to maximize conservative therapy in the form of positioning and range of motion exercises. To that end, neurotoxins also can be considered for rebalancing abnormal muscular forces across joints as a means of improving upper extremity use and preventing irreversible musculotendinous shortening and joint contractures. Only after implementing and maximizing conservative therapy should surgery be thoughtfully embarked upon. Based on a careful functional assessment of the individual, often in multiple settings, the surgeon should develop a plan that considers musculotendinous rebalancing in the form of tendon release, tendon lengthening, and/or tendon transfers often in conjunction with joint arthrodesis. Musculotendinous rebalancing procedures are based on similar principles espoused for upper extremity nerve palsies. Joint fusion procedures must consider skeletal immaturity and the proper time to perform such procedures.

In this issue of Seminars in Plastic Surgery, we present six articles that highlight a multidisciplinary approach to pediatric upper limb spasticity. The first article describes the grading and quantification of upper extremity function in children with spasticity. The second article presents advances in the rehabilitation management of pediatric upper limb spasticity. The third article reviews botulinum toxin in the treatment of pediatric upper limb spasticity. The fourth article discusses surgical treatment of shoulder spasticity and contractures. The fifth article focuses on operative management of pediatric upper limb spasticity at the elbow and forearm. The final article is included to review the surgical treatment of the spastic and contracted wrist and hand.

I would like to express my thanks and gratitude to all the other authors who took time from their busy schedules to help make this issue possible. Their experience, knowledge, and thoughtfulness shine through in these articles, and it is greatly appreciated. I hope the readers will find this issue both informative and thought provoking.