

Book Review

Review on the monograph “Improving quality of life for individuals with cerebral palsy through treatment of gait impairment”

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The monograph, *Improving Quality of Life For Individuals with Cerebral Palsy through Treatment of Gait Impairment: International Cerebral Palsy Function and Mobility Symposium*, is a publication that compiled the proceedings of international experts at an invitational meeting in December 2019 in Banff, Canada supported by Gillette Children’s Foundation. It is a free downloadable monograph recently published in 2020 by MacKeith Press. The renowned contributors are comprised of an interdisciplinary group of clinicians, basic scientists, engineers and biomechanics specialists. The preface, written by the editor Tom Novachek, states that the goal is to stimulate the reader’s “own scientific exploration.” Unlike other books about cerebral palsy and gait, this monograph does not shy away from including “disagreements, different points of view, and lack of clarity.” Readers need to have some basic knowledge of the concepts of gait and hypertonia to fully engage in the exploration that is intended for this book.

The monograph is formatted like a strategic plan to move forward the treatment of gait for individuals with cerebral palsy. Each chapter starts with the current knowledge and ends with a list of one or more of the following: 5-year priorities, 5-year goals, future needs. This document can then be referenced in the future to see how practice and knowledge has changed and whether the priorities and goals listed were addressed.

Physiatry Residents, pediatric physiatry fellows as well as other training clinicians may use the lists of priorities and future goals as ideas for scholarly projects that could spur a career path. Clinicians like myself have a glimpse of publication priorities in the next 5 years and can examine our current practice patterns.

The beginning chapters discuss boney alignment as it relates to biomechanical concepts and then transitions to the neurologic impacts of mobility. The following two chapters then discuss cellular changes that occur at the level of muscle and end with a discussion on soft tissue treatment and potential methods of predicting outcomes prior to intervention.

Two chapters question the relationship between spasticity and contracture. The underlying argument questioning the relationship was that in those who underwent selective dorsal rhizotomy, many still required subsequent orthopedic procedures. The data presented was new to me. The authors present the evidence for the possibility of other root causes for stiffness and contractures with potential therapies that have not been traditionally used for individuals with cerebral palsy in the past.

The chapter on botulinum toxin injections is relevant and thought provoking. It should be required reading for the active injector. Recent animal models presented in the monograph have demonstrated that botulinum

toxin injections can result in reduction of contractile material and increased non-contractile material that was still present 6 months later. This animal data may be pertinent to decision making and as such should be discussed with families and the team when presenting treatment options. The monograph can serve as a reference in preparation for answering those questions.

The monograph did achieve the goal of guiding my own exploration to continue to examine my clinical practice to ensure that I “first, do no harm” and be open to changing my practice as more questions are answered. After completing my own exploration, I intend to use this book primarily as an updated reference which also provides direction in the continued search for the optimal treatment for gait in individuals with cerebral palsy. In the afterward, Dr. Michael Schwartz echoes the intent of the meeting and publication: “Our

hope is not that this document should form some sort of definitive ‘last word’, but rather it serves as a starting point.” This monograph sets the stage for a common understanding of the relevant knowledge, practice and inquiry needed for all of us to start to question and provide quality care to those with cerebral palsy and gait disorders.

For the free electronic copy of this monograph please go to this URL: <http://www.mackeith.co.uk/shop/improving-quality-of-life-for-individuals-with-cerebral-palsy-free-ebook>.

Conflict of interest

The author has no conflicts of interest to report.