THE BEHAVIORS OF INFANTS WHO HAVE CORTICAL VISUAL IMPAIRMENT

Author: Christine A. Roman, PhD

Purpose: The purpose of this presentation is to describe the earliest indicators of infants and young children who have cortical visual impairment (CVI).

Target Audience: Health care professionals, physical therapists, occupational therapist, developmental specialists

Course Summary: Cortical visual impairment (CVI) is the leading cause of visual impairment in children in North America but may not always be identified in a timely manner. Children with CVI have a history of neurological sequela that damages the visual pathways or visual processing centers of the brain. These children frequently have a normal eye exam and therefore, they may not be identified as having serious visual impairment. However, they do demonstrate some distinctly atypical visual responses very early in infancy which may facilitate earlier diagnosis and more timely access to early intervention vision support. These behaviors include profound light gazing, an inability to establish eye contact with caregivers, and attention to a limited and specific category of objects. This presentation will be provide information on the diagnostic criteria used to identify infants who are most at risk for CVI. There will be video examples of specific behaviors associated with CVI and a description of an infant CVI screening protocol.

Learning Objective 1: The participants will increase understanding of the medical conditions associated with infants who are most at risk for CVI.

Learning Objective 2: The participants will increase understanding of the earliest atypical visual behaviors associated with CVI.

Learning Objective 3: The participants will increase understanding of the 3 diagnostic criteria associated with a diagnosis of CVI.

Learning Objective 4: The participants will increase their understanding of the services available to support the visual needs of an infant who has

REHABILITATION PROTOCOLS AFTER SINGLE-EVENT MULTILEVEL SURGERY

Authors: Jean Stout, PT MS; Katie Walt, PT DPT

Purpose: To discuss treatment protocols for rehabilitation after single-event multilevel surgery (SEMLS) for children & adolescents with cerebral palsy

Target Audience: Pediatric orthopaedists, physiatrists and physical therapists who encounter and care for children with cerebral palsy after orthopaedic surgery.

Course Summary: This course will summarize the role of physical therapy post-SEMLS and our rehabilitation experience for children with cerebral palsy. Aspects from initial gait analysis & pre-operative teaching to specific post-operative protocols will be described. The role of an inpatient rehabilitation episode of care and the patient selection process will be discussed. A brief description of lever-arm dysfunction & its influence on muscle function will be included. The course will illustrate and emphasize treatment with appropriate case examples.

Learning Objective 1: Describe how lever-arm dysfunction impacts muscle function and ability to strengthen before surgery.

Learning Objective 2: Discuss specific post-operative treatment protocols for bony and/or soft tissue procedures after SEMLS.

Learning Objective 3: Identify patients who may benefit from an inpatient rehabilitation episode of care & describe components of the program structure.

Learning Objective 4: Discuss goal setting and patient/family expectations.
BRK 9

CEREBRAL PALSY AND MOVEMENT DISORDERS IN VISUAL ARTS AND MOVIES

Authors: Marek Jozwiak, MD PhD; Bartosz J. Musielak, MD; Po-Jung Chen, MD PT

Level: Basic
Purpose: To present how the world’s visual arts, mainly movies, illustrate a person with cerebral palsy and other functional and movement disorders.
Target Audience: Orthopedic surgeons, neurologists, physical therapists, occupational therapists
Course Summary: Authors reviewed art works from famous European art galleries (such as Louvre or Prado museum) and the movie databases in order to find works (especially films) that focus on people with cerebral palsy and other functional and movement disorders. Collected materials were analyzed with respect to different aspects (e.g. the impact of the problem of disabilities on the content of the film, type of disorder). Basing on their own observations, the authors will present how the disabled people are reflected in the arts and mass media. Subsequently, they will discuss with the audience the impact of physicians and therapists on the way the societies conceive the disabled.

Learning Objective 1: To show the role of art in sensitizing society to the problems of people with cerebral palsy.
Learning Objective 2: To emphasize the impact of visual arts and mass media in creating the positive image of persons with disabilities.
Learning Objective 3: To present a concept of interpretation of movement disorders based on the artistic achievements of the ancient and modern world.
Learning Objective 4: To present the educational purpose of movie fragments concerning cerebral palsy.

BRK 10

THE IMPACT OF DYSPHAGIA AND GASTROINTESTINAL DYSFUNCTION ON GENERAL HEALTH AND QUALITY OF LIFE IN CHILDREN AND ADULTS WITH CEREBRAL PALSY (CP)

Authors: Helen M. Somerville, MBBS M.Paed; Edward V. O’Loughlin, MD FRACP; Rachel Gamgemi, BHSN; Jann E. Capizzi, BHSN MNDD

Level: Intermediate
Purpose: To present clinical data from multidisciplinary dysphagia/nutrition clinics of children and adults with cerebral palsy.
Target Audience: Physicians, therapists, nurses, dietitians
Course Summary: Swallowing difficulty and undernutrition are extremely common in children and adults with cerebral palsy (especially those at GMFCS levels IV & V). The impact of these clinical problems on the physical health, participation and quality of life of those affected, their families and carers is very significant. Associated health issues such as chronic lung disease, osteoporosis and difficult to control epilepsy are significant factors associated with chronic ill health and shortened life span. There is a paucity of literature and evidence base for much of the practice and interventions in all 3 areas. TOPICS WILL INCLUDE: 1. Intervention and outcome data from a large cohort (>650) of children and adults with CP 2. Management and “trouble shooting” of common problems with enteral devices and medication administration. 3. “Evidence” informed clinical practice guidelines for nutritional rehabilitation. 4. Outcomes of fundoplication study in 100 children with CP Breakfast Session attendees will participate in case discussions and share their experience of successful and “unsuccessful” interventions.

Learning Objective 1: To understand the causes of dysphagia and under nutrition in this population.
Learning Objective 2: To discuss investigations and suggest management plans for nutritional rehabilitation, constipation, chest and bone health and epilepsy.
Learning Objective 3: To discuss quality of life, impact on family and careers and the pivotal importance of a multidisciplinary team approach in coordinating, care and follow up in this population.
BRK 11
LESSONS LEARNED FROM A SPECIALIZED AUTISM GENETICS CLINIC: GENETIC TESTING, COMMON QUESTIONS, AND (SOME) ANSWERS
Author: Melissa Carter, MD

Level: Intermediate
Purpose: To provide a practical approach to genetic testing in children with autism spectrum disorders, with and without a “syndromic” presentation, by applying knowledge about the most updated genetic research and technology.
Target Audience: General pediatricians, developmental pediatricians, neurologists, nurse practitioners
Course Summary: The presenter is a Clinical Geneticist and Developmental Pediatrician who runs a genetics clinic specifically for children with autism spectrum disorders. This session will present a practical approach to genetic testing in children with idiopathic and syndromic autism, through presentation of both typical cases and more diagnostically challenging cases. The discussion will center around how to answer parents’ most commonly asked questions about advances in genetic testing, recurrence risks, microarray variants of unknown clinical significance, and how having a genetic diagnosis will affect their child’s ability to obtain services (positively or negatively).
Learning Objective 1: To learn a practical approach to genetic testing for children with autism spectrum disorders, including helpful hints on history, physical exam and family history to narrow down your differential diagnosis.
Learning Objective 2: To gain confidence in ordering, interpreting, and explaining genetic testing to families - including chromosomal microarray and the dreaded “variant of unknown clinical significance.”
Learning Objective 3: To become knowledgeable about recurrence risks for autism and how these risks are derived.
Learning Objective 4: To learn parent-friendly language for discussing genetic testing technology.

BRK 12
PREMATURE AGING IN PEDIATRIC ONSET DISABILITY: A MATTER OF SARCOPENIA, DYNAPEenia OR BOTH?
Authors: Edward A. Hurvitz, MD; Mark D. Peterson, PhD

Level: Intermediate
Purpose: This course will discuss “early aging” in adults with pediatric onset disability, including evidence in the literature regarding possible etiologies and interventions. It will focus on the confluence of sarcopenia and weakness as a potentially important causes of mobility and functional loss.
Target Audience: Physicians, therapists, nurses, program coordinators, exercise physiologists
Course Summary: Sarcopenia refers to a vulnerability to weakness, disability, and diminished independence among aging adults, including decreases in muscle quantity and quality. Failure to prevent progression of sarcopenia may exaggerate risk of frailty and disability, and impede quality of life. Adults with pediatric onset disability (e.g. cerebral palsy, spina bifida, etc.) tend to lose function earlier and at a greater rate as compared to adults in the general population. Lower levels of fitness, decreased physical activity participation, and relatively high rates of obesity in this population are known to worsen secondary muscle pathology and contribute to cardiovascular and metabolic health deterioration. This course will discuss functional loss in adults with pediatric onset disability, etiologic factors including the possible role of sarcopenia, dynapenia, and poor levels of fitness, as well as intervention strategies to prevent functional loss and decrease cardiac risk in this population.
Learning Objective 1: To describe the morphologic and neurologic mechanisms that contribute to sarcopenia and dynapenia, as well as their effects on function and mobility.
Learning Objective 2: To discuss possible etiologies of “early aging” in adults with pediatric onset disability, including functional loss due to chronic sedentary behavior, increased intermuscular adiposity and metabolic dysregulation, and diminished muscle quality.
Learning Objective 3: To explain the interaction between fitness, body composition, function and cardiometabolic risk in this population.
Learning Objective 4: To develop plans for specific interventions to ameliorate “early aging” and functional loss.