

Management of Tone in Neurosurgery

SDR vs. ITB vs. DBS

Date Wednesday October 7, 2026
Time 09:00 – 13:20
Venue InterContinental Cairo Semiramis Hotel, Cairo

Learning Objectives

Upon completion of this activity, participants should be able to:

- Understand the comparative indications, surgical outcomes, and anatomical and electrophysiological approaches for Selective Dorsal Rhizotomy (SDR), including the cauda equina approach.
- Evaluate the variability in SDR techniques across different global centers and understand the paradigm shift toward quantitative intraoperative neurophysiological monitoring.
- Comprehend the physiological rationale behind using crescendo single-pulse stimulation and F-Wave method to identify stable functional neuronal circuits for precise dorsal rootlet selection, contrasting it with traditional dermatome-based or EMG-spreading grading systems.
- Identify the indications and long-term outcomes for Intrathecal Baclofen (ITB) and Intraventricular Baclofen (IVB), particularly in the treatment of severe secondary dystonia.
- Gain expertise in the application, target selection, and outcomes of deep brain stimulation (DBS) for pediatric secondary dystonias.
- Participate in complex case discussions to formulate optimal, individualized multidisciplinary treatment strategies for pediatric patients with movement disorders.

Course Director

Dr. Bo Xiao
Shanghai Children's Medical Center

Course Faculty

(alphabetically arranged)

Dr. Benedetta Pettorini

Alder Hey NHS Foundation Trust

Dr. Brandon Rocque

Children's of Alabama, UAB Medicine

Dr. Chima Oluigbo

Children's National Hospital, Washington

Dr. Nobuhito Morota

Kitasato University Hospitals

Course Program

08:00	09:00	Registration	
09:00	09:10	Introduction and Overview of Spasticity Management	B. Xiao
09:10	09:40	SDR via the Cauda Equina Approach: Neurophysiology (F-wave), Indications & Surgical Outcomes	N. Morota
09:40	10:10	Variability in SDR Techniques & Intraventricular/Intrathecal Baclofen (IVB) for the Treatment of Dystonia	B. Rocque
10:10	10:40	New Quantitative Methods to Select Nerve Roots for Cutting in SDR Practice: The Crescendo Single-Pulse Stimulus Protocol	B. Xiao
10:40	11:10	Deep Brain Stimulation (DBS) for Pediatric Secondary Dystonias	C. Oluigbo
11:10	11:30	Coffee Break	
11:30	11:50	Overview of Available Treatments for Pediatric Spasticity and Results from a 10-Year Follow-up	B. Pettorini
11:50	12:50	Interactive Case Discussions & Multidisciplinary Panel	All Faculty
12:50	13:20	Local Faculty Perspectives / Extended Case Presentations	