

# 30th ESPU Congress - Lyon, France - 2019

## S16: NEUROPATHIC BLADDER 2

*Moderators: Anju Goyal (UK), Yazan Rawashdeh (Denmark)*

**ESPU Meeting on Friday 26, April 2019, 14:56 - 15:52**

15:44 - 15:49

**S16-9 (VP)**

### **INTRAVESICAL ELECTROMOTIVE BOTULINUM TOXIN TYPE A ADMINISTRATION IN CHILDREN WITH MYELOMENINGOCEL**

Lida SHARIFI RAD<sup>1</sup>, Seyedeh-Sanam LADI-SEYEDIAN<sup>2</sup>, Behnam NABAVIZADEH<sup>2</sup> and Abdol-Mohammad KAJBAFZADEH<sup>3</sup>

*1) Tehran University of Medical Sciences, Pediatric Urology and Regenerative Medicine Research Center and Department of Physical Therapy, Tehran, ISLAMIC REPUBLIC OF IRAN - 2) Tehran University of Medical Sciences, Pediatric Urology and Regenerative Medicine Research Center, Tehran, ISLAMIC REPUBLIC OF IRAN - 3) Children's Hospital, Urology, Tehran, ISLAMIC REPUBLIC OF IRAN*

#### **PURPOSE**

Electromotive drug administration (EMDA) presents a minimally-invasive method of intravesical instillation of therapeutic agents without the need of general anesthesia. It employs a combination of iontophoresis, electrophoresis, and electroporation to deliver drugs into deep tissue layers using an electrical current created between two electrodes. The video shows feasibility of BoNTA/EMDA in myelomeningocele (MMC) patients who had urinary incontinence secondary to neuropathic detrusor overactivity (NDO).

#### **MATERIAL AND METHODS**

During 2008-2017, BoNTA/EMDA was performed in 35 patients with MMC who had NDO and urinary incontinence for the first time in our center. Applying an electrode bladder catheter, 10 IU/kg of Dysport® (BoNTA) was inserted into the bladder for EMDA without anesthesia as an outpatient basis. The EMDA equipment was connected to the electrode of indwelling catheter and two dispersive electrodes, a pulsed current generator delivered 10-20 mA for 20 minutes. At the end of the procedure, the electrodes were separated, and the bladder was emptied. The preliminary assessments were voiding diary, urodynamic study (UDS), kidney and bladder ultrasounds.

#### **RESULTS**

According to our prior reports, urinary incontinence improved in 75% of the patients between two consecutive clean intermittent catheterizations after BoNTA/EMDA treatment at 1 year follow up. Mean maximal cystometric capacity significantly increased in the most of the patients after the treatment.

## **CONCLUSIONS**

BoNTA/ EMDA is a feasible, safe, reproducible, cost effective, long lasting and pain free method as an outpatient's basis with long-term duration of effects without anesthesia or cystoscopy procedure.

---

*15:49 - 15:52*

Discussion