

## Ultrasound-guided phenol and BTX-A neurolysis: Make it easier at lower cost

### Objectives of lecture

1. How to treat spasticity and focal dystonia with chemical neurolysis? (Witsanu Kumthornthip)
2. Ultrasound-guided phenol and BTX-A neurolysis: Make it easier at lower cost (Terada Ploypetch)

Spasticity and dystonia are common problems in neurological rehabilitation practice. They may negatively impact on the patient's function such as activities of daily living, gait, affection and mood, suffering as well as quality of life. Among various treatment modalities, chemical neurolysis with either botulinum toxin-A (BTX-A) or phenol injection is a keystone for focal spasticity, while BTX-A is worth for focal dystonia and other conditions related to muscle overactivity. Balance between effectiveness and safety is a key decision-making of its use. In certain conditions, BTX-A may be combined with other non-pharmacological management such as splint, orthosis, seating, stretching, exercises or even surgical intervention. Case selection, clinical experiences, muscle selection, injection techniques and goal setting are critical factors for successful outcomes. One of the major concerns of its use is the cost of BTX-A. Until now, cost-effectiveness is still equivocal and strong evidence to support its universal use is lacking. Recently some evidences to demonstrate the accuracy of BTX-A injection with guidance by using electrical stimulation, needle EMG and ultrasonography have been published in order to improve the efficacy and reduce the adverse events; however, it increases the financial burden particularly in the limiting resource countries. How to optimize its use is very challenging? Evidences and case presentation will be discussed in the lecture.