

Title: In-plane access: Single point Botox injections to lateral abdominal wall muscles

Authors: Mr A. Mihailescu, Dr. M. Soliman, Mr. G. Pokusevski
Tameside General Hospital, Ashton-Under-Lyne (United Kingdom)

BACKGROUND

Traditionally, the Botox injections delivered to lateral abdominal wall muscles in the pre-optimisation process prior to abdominal wall reconstruction for large defects of the parietal surface of abdomen, was conducted via 3 injections on each side of the abdominal wall. The patients received a total of 6 injections in different points of the abdominal wall, bilaterally. The procedure is conducted under analgo-sedation or local anaesthetic infiltrations alone. In our Hospital, some of the patients complained re-multiple injections, particularly if local anaesthetic not delivered appropriately at all injection sites.

AIMS

Primary aim: to describe a new technique for injecting Botulinium B toxin to lateral abdominal wall muscles (LAWM)

Secondary Aim: To outline the potential benefits of the technique compared with the classical “3 injection points/side” method currently in practice

METHOD

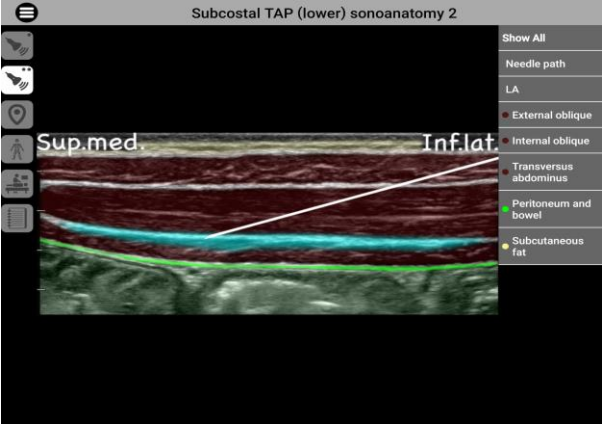
- 1- Rectus muscle is defined by USS technique and it’s lateral edge marked either sides
- 2-A single point is chosen midway between the costal border and ASIS on each side of abdomen, slightly lateral to mid-clavicular line. (lateral to semilunar line)
- 3- USS translucent needle is chosen with 15-20 cm length, depending on patient’s body habitus (BMI)
- 4- After adequate local anaesthetic skin infiltration, injection with BTB toxin is performed by inserting the needle at a 30 degree angle skin-needle orientation targeting the upper body of the LAWM, starting with TA and continuing with IO and EO muscles by gently withdrawing needle and following USS guidance. Orientation: Tip of needle is orientated away form patient’s head.
- 5- The central part of LAWMs is approached next in a classic 90 degree needle on skin angulation, technique is followed as above.
- 6- Finally, the lower parts of LAWM are approached in similar fashion, using again a 30 degree angulation, downwards orientation (tip of needle orientated towards patient’s head)

Note: Needle is kept in the subcutaneous plane when points 4, 5 and 6 are delivered

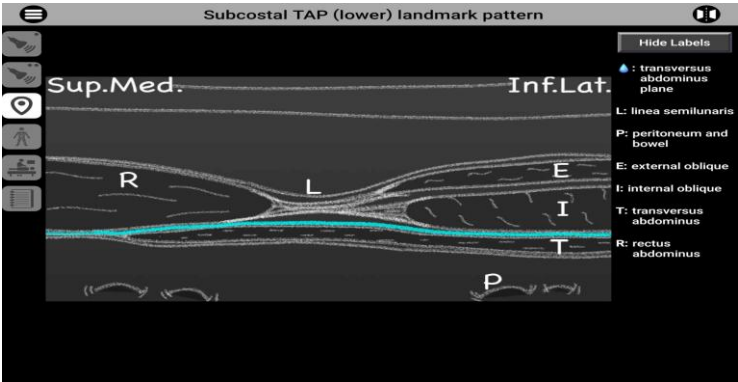
Picture 1



Picture 2



Picture 3



RESULTS

- After performing a handful of cases using the new technique, the feedback from the patients re- their experience was positive and encouraging.
- The surgical team noticed no difference in BTB infiltrations efficacy with regards to LAWM compliance and ability to closes large abdominal wall defects with pre-op BTB delivered via the “in-plane” technique”
- Preliminary results suggest approx. 10 mins reduced procedure time compared with “6 points approach
- The team is planning a prospective audit of cases done using VAS/NRS pain scales and theatre time utilisation to measure clear benefits of the technique

DISCUSSION & CONCLUSIONS

Theoretical advantages of the "in-plane access" technique for BTB injections:

- reduced amount of time required for the procedure
- reduced use of local anaesthetic
- less risk of injection sites infection
- offers improved experience to the patient with minimal discomfort