

# Activated Triggerpoints in the Gluteus Maximus Muscle -

## Successful Treatment with Ultrasound (US) guided Botulinum Toxin (BTX) Infiltration

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### Objectives

To show the efficacy of US guided infiltrations Botulinum Toxin BTX (Xeomin, Botulinum Neurotoxin A, Merz) in activated Triggerpoints (TP). Pain score (NRS 0-10) and TP size (US controlled) at the beginning and after 5-6 weeks were recorded.

### Methods

Two patients suffering from severe buttock, groin and thigh pain for several weeks (15/20 months after successful SIJ Neurotomy). The suspected diagnosis of an activated TP was confirmed by US, seeing a hyperechogenic, oval structure. At least 50% pain relief after an US guided test block (in plane technique) with Lidocaine 2% (2-3 cc infiltration volume depending on TP size) were necessary for treatment with BTX (12/14 Units, 1 week after test block).

NRS and TP size were recorded at the beginning and after 6 weeks.

### Results

Reproducible reduction of size and pain.

Patient/ BTX Units	P1/ 12IU	P2/ 14IU
TP start		
Size (cm)	2,8 x 1 x 1	3,4 x 1,5 x 1
Volume (cc)	2,8	5,2
NRS	6,5	8,5
TP 5- 6 weeks BTX		
Size (cm)	1,4 x 0,6 x 0,6	1,7 x 0,8 x 0,8
Volume (cc)	0,5	1,1
NRS	3,5	3

### Discussion

The role of TPs causing pain is well known. Finally, the Delphie study defined TPs and diagnostic criteria and clinical considerations [1]. Bahman Jabbari, MD, and Duarte Machado, MD, could show the role of BTX in pain treatment, although the evidence for treatment of TP caused pain is rare [2]. The importance of using Ultrasound guided injections to confirm proper and safe needle placement is shown by Kenneth P. Botwin [3].

Activated TPs can cause severe pain, even more after successful treatment with RF Neurotomy in case of chronic pain syndrome: Forced and probably overtraining and missing physical exercise under instruction of an experienced trainer can lead to local muscle spasms and development of TPs. US guided infiltrations are helpful to reduce pain and TP size.

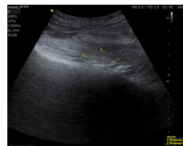
Further investigations and studies should show the adequate dose of BTX and the importance of a test block. Additionally, the role of incorrect training and physical exercises in the development of TPs in weakened muscles of patients with chronic SI Joint mediated pain should be investigated in further studies.

Before



P2 TP start, Size (3.4x1.5x1 cm, 5.2 cc)

After



P2, reduction of Size, 3 weeks after BTX

