O-29 - BOTULINUM NEUROTOXIN FOR TREATMENT OF DEPRESSION

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Introduction: Frowning expresses negative emotions like anger, fear, and sadness. According to the facial feedback hypothesis, suppression of frowning will also diminish the corresponding negative emotions. Hence, mood improvement has been observed in patients who underwent treatment of glabellar frown lines with botulinum neurotoxin. This observation suggests the possibility that the intervention may be employed for the management of psychiatric disorders associated with negative emotions. Preliminary data from an open case series indicate that the intervention might improve the symptoms of depression.

Aims & objectives: To test whether an onabotulinumtoxinA injection into the glabellar region is benefical as an adjunctive treatment of major depression within a clinical trial.

Methods: We used a randomized, double-blinded, placebo-controlled study design (n=30; ClinicalTrials.gov, number, NCT00934687).

Results: We show that a single onabotulinumtoxinA treatment shortly leads to a strong and sustained improvement in partly chronic major depression that did not respond sufficiently to previous treatment. As for the primary end-point, Hamilton Depression Rating Scale (HAM-D_{17}) six weeks after treatment compared to baseline, scores of onabotulinumtoxinA recipients showed 37.9% (8.34 points) more improvement than those of placebo-treated participants ($F=12.30$, $p=0.002$, $\eta^2=0.31$, $d=1.28$).

Conclusion: Our findings support the concept that the facial musculature not only expresses, but also regulates, mood states. As it stands, treatment of glabellar frown lines with botulinum neurotoxin can be considered for depressed patients with the objective of inducing mood-lifting effects.

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