

# **Microneedling delivery of botulinum toxin versus its intradermal injection for treatment of facial hyperhidrosis**

## **Authors**

Dr. Howyda Mohamed Ebrahim, assistant professor of Dermatology department, Faculty of Medicine Zagazig University, Egypt.

Amani Nassar, professor of Dermatology department, Faculty of Medicine Zagazig University, Egypt.

Marium Mossa, MSC of Dermatology department, Faculty of Medicine Zagazig University, Egypt.

-There were no any Conflicts of interest.

**Corresponding author: Howyda Ebrahim**

**Corresponding author's e-mail:**howyda1968@gmail.com

## **Abstract**

### **Background**

Current treatments of Facial hyperhidrosis (FH) are limited and often associated by adverse effects.

### **Objective**

To study the usefulness, safety and tolerability of microneedling (Mn) delivery of botulinum toxin-A(Mn+BTX-A) versus its intradermal injection in the treatment of FH.

Forty-two patients with FH were subjected to Mn followed by topical application of BTX-A on one side of the face and intradermal injection of BTX-A (Id BTX-A) on the other side. A1ml of diluted BTX-A was used on each side for 2 sessions 2 weeks apart. Assessment tools were Hyperhidrosis Disease Severity Scale (HDSS), measurement of Quality of life Index (QOLI), iodine starch test, and patient's satisfaction.

### **Results**

Score 1 of HDSS was achieved in (85.7%) on the Id BTX-A side vs (83.3%) on the Mn+BTX-A side ( $P=0.76\%$ ). Most of the patients in the injection sides responded by the 1<sup>st</sup> session while the Mn+BTX-A side responded by the second one ( $P<0.001$ ). DLQI was highly significant post-treatment on both sides ( $P<0.001$ ). The side effects were mainly pain in the injection sides and mild transient erythema on the other side. Mn+BTX-A side yielded higher patient satisfaction.

### **Conclusion**

Both techniques were safe and effective in controlling the FH. Microneedling delivery of BTX-A was less painful and had greater patient satisfaction.

**Key words:** Facial hyperhidrosis, Botulinum toxin Type A, , Microneedling,