

## **Facial Muscles and Glands Considerations during Minimally Invasive Procedures**

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Unexpected side effects of BoNT-A injection may occur because the anatomy of the facial musculature is not fully characterized. There are many differences between real anatomy and what is described in textbook. For example, it is known that the locations of lateral border of frontalis muscle generally thought to be the same as the superior temporal line. However, in the majority of cases, it covers the superior temporal line and extends beyond the upper temporal region. Therefore, injection should be performed considering these anatomical features to reduce the side effects like Mephisto sign. Masseter and temporalis muscles are also common injection site for BoNT-A. These muscles consist of muscle belly and strong tendon structure. I will introduce the injection guidelines only targeting the muscle belly area on patient's surface. Also, anatomic features and depth information of orbicularis oculi, corrugator supercilii, depressor anguli oris, depressor labii inferioris, risorius, depressor septi nasi and parotid gland are described in this presentation. This presentation includes 15 research papers from acknowledged journals in relation to clinical anatomy. It is my wish that through this presentation, clinicians are able to learn clinical anatomy related to minimally invasive procedures and to grow in knowledge regarding the prevention of complications.