Relevant Anatomy in Treating Benign Essential Blepharospasm

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Goals for Today

• Understand location and function of facial muscles
• Appreciate the role of these muscles in facial expression
• Be better able to correlate anatomy with treatments for benign essential blepharospasm, hemifacial spasm, and Meige’s syndrome.
Orbicularis Oculi Muscle

- Closes the eyelids
- Blinks
- Lowers the lateral aspect of the brow
- Immediately below the skin surface
Corrugator Supercilii Muscle

- Draws the eyebrow downward and medially
- Produces vertical wrinkles in the glabellar region
- Covered by thicker skin and subcutaneous tissue
Procerus Muscle

- Pulls down the skin between the eyebrows
- Produces horizontal wrinkles over the bridge of the nose
- Covered by thicker skin and subcutaneous tissue
Zygomaticus Major Muscle

- Raises the angle of the mouth in a smile
- Creates dimples
- Covered by skin and cheek fat
Levator Labii Superioris
Alaeque Nasi Muscle

- Lifts the upper lip
- Dilates the nostril
- Under the skin transitioning between the nose and cheek
- Close proximity to the angular artery
Orbicularis Oris Muscle

- Closes the mouth
- Puckers the lips
- Needed for sucking on a straw or whistling
- Close to the surface
Depressor Anguli Oris Muscle

- Draws the corner of the mouth downward
- Deep to skin and subcutaneous fat
Platysma Muscle

- Grimacing
- Drawing down the lower lip and angle of the mouth
- Seen as bands in the neck with aging
Platysma Muscle
Meige’s Syndrome

• Blepharospasm
  – Abnormal twitching of the muscles of facial expression, predominantly featuring the orbicularis oculi muscle

• Oromandibular dystonia
  – Focal dystonia that affects the head and neck, including the lower face, jaw, tongue and larynx
  – Involuntary contractions involve the muscles of mastication
Muscles of Mastication

- Temporalis fascia
- Temporalis muscle
- Zygomatic arch
- Temporomandibular joint
- Masseter muscle
- Deep part
- Superficial part
- Parotid duct
- Buccinator muscle
- Depressor anguli oris muscle
- Orbicularis oris muscle
- Mentalis muscle
- Depressor labii inferioris muscle
- Temporalis muscle
- Insertion of temporalis muscle to coronoid process of mandible
- Lateral pterygoid muscle
- Masseteric nerve and artery
- Maxillary artery
- Insertion of masseter muscle
References

  – *Anatomical drawings are all from Netter’s book.*