

Use of Needle-free Anesthesia for Rx of Palmar HH with Botox

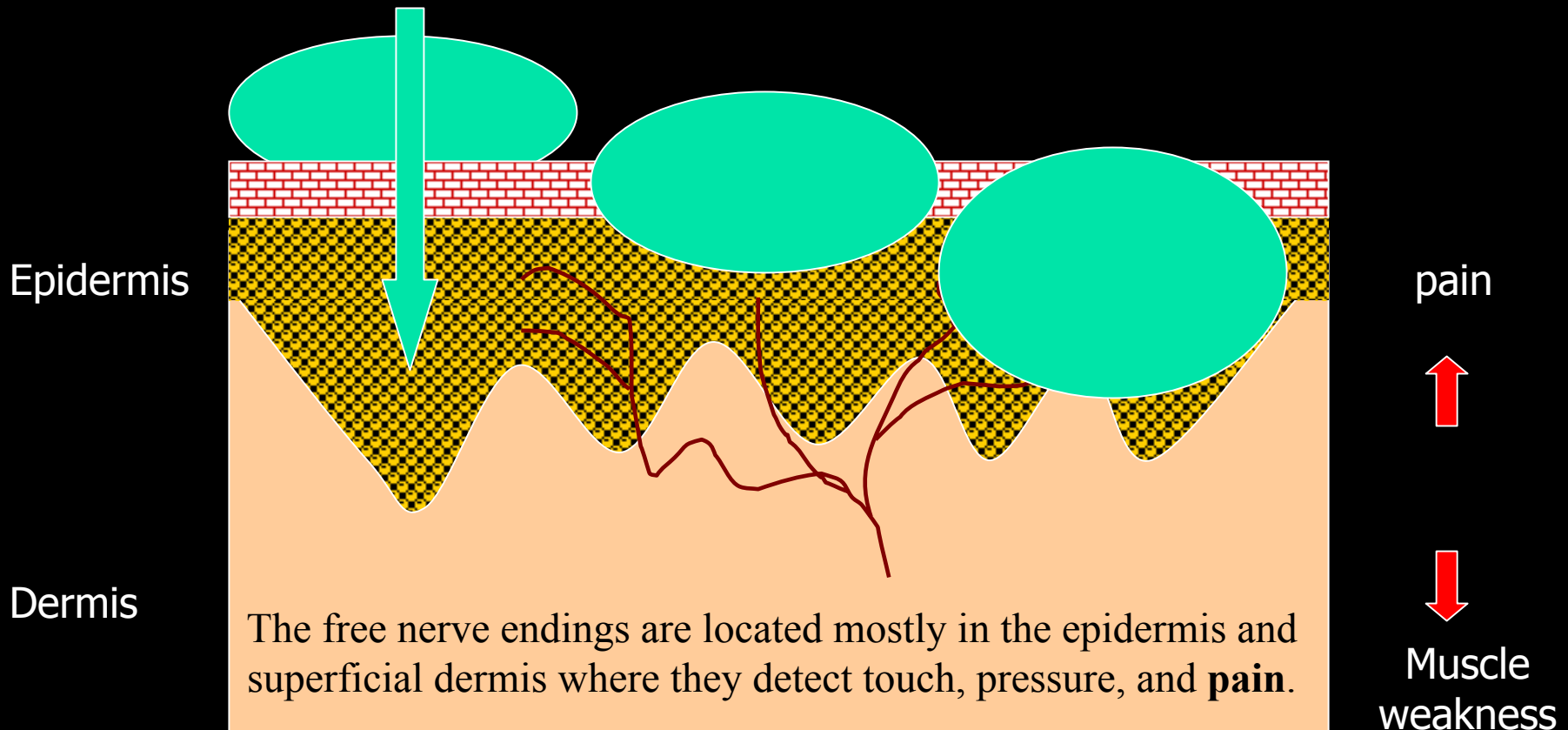
Antranik Benohanian md, frcpc
Hôpital Saint-Luc du CHUM

Treatment of Palmar Hyperhidrosis with botulinum toxin:

An effective therapeutic option. Its use is limited by extreme pain during the injections because the free nerve endings responsible for pain sensation are located in the papillary dermis and epidermis. I.D or S.C injections are less painful but may result in higher incidence of muscle weakness.

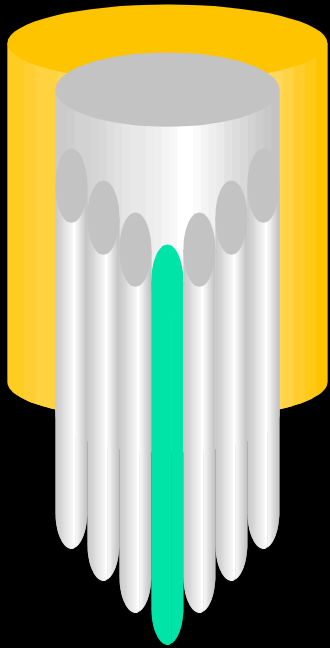
- nerve block of the wrist
- cryoanalgesia
- intravenous regional anesthesia (Bier's block)
- vibration technique
- Future directions : needle-less injections?

Anesthesia of the superficial dermis and epidermis : 0.02cc of **2% Lidocaine weal** formed by the injection of the needle-less **Med-Jet® « MBX »** provides adequate analgesia to inject Botox in a much less painful way



Needleless Injections start with a pressure of 80 psi and is increased by increments of 5 psi subsequently until a tiny wheal is formed. The device is powered by CO₂.

Needleless Anesthesia with Med-Jet® Model “MBX” prior to BXA injection for Palmar HH



- The lidocaine injected with the MED-JET® is directed *through a small orifice seven times smaller than the smallest available needle in the world.* This extremely small stream of liquid under pressure will pierce the skin and then the remainder of the dose will be dispersed into the desired layer of tissue. The system's uniqueness is its ability to utilize low pressure delivery methods without compromising accuracy, convenience and ease of use - while ensuring patient comfort, environmental safety and user affordability.



Needleless Lidocaine injection with Med-Jet® Model “MBX” prior to BXA injection for palmar HH



A starting 80 psi CO₂ pressure is steadily increased by increments of 5 psi after each injection until a tiny wheal becomes visible to the naked eye. This procedure involves an insignificant amount of pain that is acceptable by most patients especially the needle-phobic. Botox needles are then inserted into each tiny wheal in a totally painless way.

Needleless Lidocaine injection with Med-Jet® Model “MBX” prior to BXA injection for palmar HH



- The volume of lidocaine could be adjusted with this device to a predetermined volume ranging from 0.01 to 0.1 cc.
- No device on the market providing this range.
- The optimal volume 0.01 - 0.02 cc.
- The device is powered by an adjustable pressure that allows the injected material to reach the dermoepidermal junction area.



2 MU of Botox
is injected into
each wheal



October 5, 2004

