Topical NPT plus some surprises
(at least I was surprised)
Disclosures

Owner of Prologel, Inc.

Royalties with Modern Medical Technology
In 1825, he pioneered creating blisters to treat neuralgia. Then any topical solution, such as oil of turpentine or spirits of ammonia, penetrated quickly and worked well.
Dr. G.V. Lafargue

- In 1836, he pioneered the first peripheral nerve injection.
- The point of a lancet was dipped into a solution of aqueous morphine, inserted horizontally beneath the epidermis.
- Performed 13 lancet insertions near the nerve of his anterior forearm.
- He stated it cured his neuralgia.
Dr. Lafargue’s aqueous morphine was 3/4 glycerin
In 1841, Valleix wrote a book on peripheral nerve treatments using blisters with oil of turpentine, and spirits of ammonia. 3/4 patients were pain-free or nearly so.
Valleix’s Points

Nerve’s painful regions
- Nerve’s emergence from a bony canal.
- Nerve piercing a muscle to reach the skin.
- Nerve resting on a surface where compression is easily made.
- Nerve branch termination in the skin.
46 injections were administered into the infraorbital nerve in its canal.
11 percutaneous injections were administered into the mandibular nerve just proximal to the mandibular canal.
3 injections were administered into supraorbital nerves.

87% of injections brought marked or total relief with morphine creosote.
Dr. Alexander Wood

- In 1853, he procured an elegant syringe for subcutaneous peripheral morphine injections.
- Wood’s proposed mechanism of action was at the cellular tissue in the neighborhood of the nerve.
- States what is true for narcotics would be true for other classes of remedies.
- Subcutaneous morphine injections were widely practiced as result of Wood's publications.
“That gentleman (Dr. Valleix) pointed out the fact which seems to have escaped the notice of all previous observers, that the superficial nerves are the ones most commonly affected.”

Alexander Wood-1855
“Interscalene block with 5 mg morphine HCL. The result was dramatic, with analgesia being complete within 20 minutes and persisting for 36 hours.”

*Anaesthesia*, 1984, Volume 39, pages 788-789 CASE REPORT
R. SANCHEZ, et al
Glycerol neurolysis: neurophysiological effects of topical glycerol application on rat saphenous nerve

25% glycerol-blocks C-fiber conduction with minimal effect on A fiber conduction.

50-100% glycerol-blocks both C-fiber and A fiber conduction.

“Spontaneous firing within damaged axons, which may play a role in a variety of cranial and peripheral nerve sensorimotor syndromes, is also exquisitely sensitive to glycerol application.”

Burchiel KJ, and Russell LC.
Glycerin 3% SubQ injections relief when dextrose 5% failed
High percentage pain relief with first set of injections

Thoracic Pain
(no pain as with dextrose injection)

Neck Pain

Headaches

Shoulder Pain
Procedures with pre-approval from:
- California’s Worker’s Compensation Insurance
- Tricare-United States Military

**CPT CODE-64450**
Injection anesthetic agent; other peripheral nerve

**CPT code 64640**
Destruction by neurolytic agent; other peripheral nerve or branch
Peripheral nerve blocks

Injection of chemical substances, such as local anesthetics, steroids, sclerosing agents and/or neurolytic agents into or near nerves.

No more than 3 injections per site in a 6 month period.

No more than 2 injections at different sites at any one session.

(Bill non pre-approved cases at your own risk!)

NOVATIS SOLUTIONS, INC CMS CONTRACT CENTER FOR MEDICARE AND MEDICAID SERVICES
Glycerin toxicity

Glycerin maximum use is limited, especially subQ injections. Dr. Reeves will discuss toxicity risks at higher levels.

Success with lower percentages: 1%-2.5%.
-my maximum dose-20cc of 3%
My Sweet Topical NP Testing

Dextrose-excellent results
Glycerin enhances dextrose results.
Sorbitol is performing best in beta testing-sorbitol might replace glucose and/or glycerin in the future.
Topical application vs. phonophoresis with Aloe vera (in a rat paw)

Topical application-no statistical improvement

Phonophoresis reduced edema, the number of inflammatory cells, promoted the rearrangement of collagen fibers, recovery of the tensile strength and elasticity of the inflamed tendon to recover their normal pre-injury status.

Filho AL et al
Lipid penetrators-key ingredients

Spheres to penetrate the skin’s mostly lipid barrier.
In severe pain of the elbow and wrist, significant improvements in dynamic and isometric local muscular endurance (as high as 42%) were observed, as was a reduction in pain.

Kraemer WJ, et al

From Adam Weglein, D.O.

Note: This area went from red to white after treatment with prolophoresis.
Prolophoresis
Prospective study
Over 90% reduction in pain

<table>
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<tr>
<th>Patient</th>
<th>Complaint</th>
<th>VAS pre-treatment</th>
<th>VAS post-treatment</th>
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<tr>
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<td>Neck pain</td>
<td>6</td>
<td>1</td>
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<tr>
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<td>Plantar fascitis</td>
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<tr>
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<td>Carpal Tunnel pain</td>
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<td>.5</td>
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</table>
Shoulder Pain-Before Prolophoresis

45 year-old male
S/P 4 left shoulder operations
Including a total shoulder replacement
After Prolophoresis

One Treatment
Ganglions are produced from C-fibers

Before

10 seconds of topical

10 seconds of prolophoresis
Resistant Cases

Some Treatment options:
(more at October NPT Conference)

Cold spray the nerve, then mix with topical prolo

also for headaches-shampoo the area with topical prolo
Low cost ultrasound machines

Battery unit $1.00

Electrical Units start around $30

CPT code 97035

Application of a modality to one or more areas; ultrasound, each 15 minutes
Pilot Study—with a topical delivery system with a prolotherapy solution

11 patients were treated topically with a prolotherapy solution.

The pain scores went from 6.3 pre-treatment to 1.2 post-treatment, which is an 81% drop in pain.
When is cream mightier than a needle?

- Cranial numbness
- Post-PRP pain - AOA prolotherapy conference
- Diabetic Peripheral Neuropathy
- Rheumatoid Arthritis
- Fibromyalgia treatment - (Stop Your Addiction)
- Weaning patients off narcotics
Anti-Fungal effect

Pre-treatment                       Post-2 treatments
Anti-viral effect

Before

36 hours later
Anti-bacterial

Pre-treatment  5 hours later  Next day
Shingles-only OTC Rx?

*Topical Prolo with lidocaine.*

- One treatment
- Pain returned worse after 4 hours.

*Topical Prolo with Dextrose*

- Q30 minutes then less often
- In 1-2 days no more shingles
- Does not use any oral med
Topical glucose protects retinal ischemic damages

Topical glucose protects retinal ischemia by switching from necrosis (through cellular energy loss) to apoptosis. Fujita et al

Apoptosis is controlled process for cells. Necrosis is dying cells with swelling and bursting.
Iontophoresis machine vs. patch

CPT code 97033-iontophoresis, each 15 minutes
Elderly female with knee pain since 1995
“Bone on Bone” X-ray

Patches treatment
Pain went from 10/10 to a .5/10
Pain relief lasted 4 months.

5 minutes with ionotophoresis device
2 days pain relief
NPT workshop (sans John)
Oct. 5 and 6, 2012 Huntington Beach, Ca-$300

Neural Prolotherapy techniques new and old: hyaluronidase, sweet hydrodissection, neural therapy, mesotherapy, acupuncture, and deep tendon release.

All 4 prior USA NPT hosts will be speakers
Post conference-Diagnostic Ultrasound-October 6 and 7-$150
With emphasis on peripheral nerve injections
Below is a supraclavicular injection
“I beg to thank you for your patient attention and have to apologize for the imperfect manner in which I have brought the remedy before you.”

Alexander Wood
re: Treatise On Neuralgia