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Disclosures

• I have no conflict of interest or any disclosures
Objectives

• Review Osteopathic Principles
• Osteopathic principles in dermatology
• Medical dermatology cases
• Osteopathic Manipulative Medicine
• Dermatology and Osteopathic medicine
Osteopathic Tenets

- Body is a unit; the person is a unit of body, mind, and spirit
- The body is capable of self-regulation, self-healing, and health maintenance
- Structure and function are interrelated
- Rational treatment is based on an understanding of 3 main principles
What are our goals as Osteopathic physicians?

- Seek and address root cause(s) of disease using available evidence-based approaches
- Optimize patient’s self-regulating and self-healing capacities
- Provide individualized care plan with emphasis on
  - Health promotion and disease prevention
  - Patient education
  - Patient partnership
- Incorporate palpatory diagnosis and OMM, when appropriate, for well being of patient
# Osteopathic principles in Dermatology

<table>
<thead>
<tr>
<th>Osteopathic Approach in Dermatology</th>
<th>Dermatologic Disease</th>
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<tbody>
<tr>
<td><strong>Osteopathic Manipulative Treatment</strong></td>
<td>□ stasis dermatitis, primary hyperhidrosis, brachioradialis pruritis, nostalgia paresthetica</td>
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<tr>
<td>□ Patients with skin conditions may benefit from osteopathic manipulative treatment as adjunctive therapy</td>
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<tr>
<td><strong>Principle 1. The body is a unit.</strong></td>
<td>□ acne vulgaris, psoriasis, vitiligo, melasma</td>
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<tr>
<td>□ Skin disease may affect the mind</td>
<td>□ delusions of parasitosis, trichotillomania, dysesthesia syndromes, pruritis</td>
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<td>□ The mind may cause or exacerbate cutaneous disease</td>
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<td><strong>Principle 2. The body is capable of self-regulation, self-healing, and health maintenance.</strong></td>
<td>□ psoriasis, atopic dermatitis, vitiligo, alopecia areata</td>
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<td>□ Some skin diseases have an immunologic basis for pathogenesis</td>
<td>□ pityriasis rosea, granuloma annulare, erythema toxicum neonatorum, lichen striatus</td>
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<td>□ Self-limited skin diseases illustrate the body’s ability to heal</td>
<td>□ nonmelanoma skin cancer, melanoma</td>
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<td>□ Skin disease can be actively prevented</td>
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<td><strong>Principle 3. Structure and function are interrelated.</strong></td>
<td>□ bullous impetigo, bullous pemphigoid, pemphigus vulgaris, epidermolysis bullosa variants</td>
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<td>□ Defects in skin structure result in skin disease</td>
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<tr>
<td><strong>Principle 4. Rational treatment is based on an understanding of the 3 main principles.</strong></td>
<td>□ acne vulgaris, psoriasis, occupational dermatoses, dermatomyositis</td>
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<tr>
<td>□ Examining the patient as a whole</td>
<td>□ acanthosis nigricans, recurrent dermatophyte infections, eruptive xanthomas, pruritus</td>
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<tr>
<td>□ Cutaneous signs of internal disease</td>
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</tbody>
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1. Body is a unit; the person is a unit of body, mind, and spirit

Acne vulgaris

Psoriasis
Acne Vulgaris

• Multifactorial
  • Increased sebum production, Follicular hyperkeratinization, Proliferation of Cutibacterium acnes (formerly Propionibacterium acnes), inflammation
  • Drugs, cosmetics, etc
• Comedonal, papular, pustular, cystic types
• Topical and oral retinoids, benzoyl peroxide, topical and oral antibiotics, salicylic acid, spironolactone (off label), oral contraceptives, etc
• Prevent resistance of topical antibiotics by adding topical benzoyl peroxide to the regimen

• → Scarring and psychosocial stress
• Prevention and early treatment!!
Acne Vulgaris

http://youtube.com/watch?v=2y963kkzaf4

http://youtube.com/watch?v=2y963kkzaf4
Psoriasis

- Chronic, intermittently relapsing inflammatory disease
- Well demarcated erythematous silvery scaly plaques on scalp, elbows, knees, nails, hands, feet, trunk
- Different variants of psoriasis
- Topical steroids and vitamin D analogs, tar based therapy, biologics, etc
- Linked to higher likelihood of suicidal ideation, suicide attempts, and completed suicides (JAAD, Aug 2018)
- Possible new therapy: JAK inhibitors (tofacitinif, baricitinib) (JAAD, Aug 2018)
2. The body is capable of self-regulation, self-healing, and health maintenance

Pityriasis Rosea
Pityriasis Rosea

- Exanthematous disease associated with Human Herpes Virus-6 & HHV-7
- Starts as solitary pink, salmon scaly plaque (herald patch) → spreads in Christmas tree pattern
Pityriasis Rosea
3. Structure and function are interrelated

Notalgia Paresthetica
Notalgia Paresthetica

- Idiopathic (..spinal nerve impingement?)
- Sensory neuropathic syndrome of the midback skin
  - T2-T6 → localized pruritus and dysesthesia (mild→severe)
- Hyperpigmented patch on the scapular/interscapular region
- Unsatisfactory treatment to date
  - Topical capsaicin
  - Gabapentin
  - Botox
  - Physiotherapy/OMM
Notalgia Paresthetica
Current therapies to date...


**Efficacy of gabapentin in the improvement of pruritus and quality of life of patients with nostalgia paresthetica.**

Maciel AA¹, Cunha PR¹, Laraia IO¹, Trevisan F².


**Successful treatment of nostalgia paresthetica with topical capsaicin: vehicle-controlled, double-blind, crossover study.**

Wallengren J¹, Klinker M.

**The Cutting Edge**

August 2007

**Successful Treatment of Nostalgia Paresthetica With Botulinum Toxin Type A**

Pamela Kirschner Weinfeld, MD
OMM for Notalgia paresthetica

- Muscle energy
- HVLA
- Counterstrain
- Chapman’s points


Chapman’s Points

- Sinuses
- Cerebellum
- Retina, conjunctiva
- Neck
- Larynx
- Pyloris
- Small intestines
- Middle ear
- Nasal sinuses
- Pharynx
- Tonsils
- Tongue
- Esophagus, bronchus
- Thyroid, myocardium
- Upper lung
- Lower lung
- Stomach (acidity) L
- Liver R
- Stomach (peristalsis) L
- Liver, gall bladder R
- Spleen L, pancreas R
- Left adrenal

These are on
4. Rational treatment is based on an understanding of the 3 main principles

Whole person approach

Dermatologic manifestation of internal diseases
Medical dermatology cases

• Herpes Zoster
• Post herpetic neuralgia
• Stasis Dermatitis
• Elephantiasis Nostra Verrucosa
• Lipodermatosclerosis
• Hyperhidrosis
Herpes Zoster Infection (Shingles)

- Reactivation of latent varicella-zoster virus (chickenpox), dormant in dorsal root ganglia
- Transmission by airborne droplets or direct contact with active lesions
- Virus replicates in DRG → ganglionic → intensified pain down sensory nerve
- Groups vesicles in unilaterial dermatomal distribution
- Typically resolves without sequelae...
Thoracic spine
Hutchinson’s sign and zoster ophthalmicus
Ramsay Hunt Syndrome
Cervical spine
Lumbar spine
Current pharmacologic therapy

• Immunocompetent/uncomplicated hosts
  • Less than or equal to 72 hours since onset, prescribe one of following:
    • Valacyclovir 1g BID for 7-10 days (initial); 500mg BID x 3 days or 1g QD x 5 days (recurrent); 500mg or 1g QD (suppressive)
    • Famciclovir 500mg TID for 7 days
    • Acyclovir 800mg Five times daily for 7 days
  • Greater than 72 hours since onset
    • Prescribe antiviral only if ongoing new lesions- indication of ongoing viral replications
    • Otherwise, minimal benefit

• Pregnant women
  • Little evidence for increased risks for complications
  • Treat early herpes zoster
    • Oral acyclovir 800mg five times daily for 7 days

• Immunocompromised hosts:
  • Regardless of time frame of rash presentation
    • Treat EVERYONE
    • Rapid initiation of therapy is critical
    • Severe disease: Acyclovir IV therapy for disseminated zoster
Alternative Treatment


**In vitro antiviral activity of honey against varicella zoster virus (VZV): A translational medicine study for potential remedy for shingles.**

Shahzad A¹, Cohrs RJ.


**Acupuncture in acute herpes zoster pain therapy (ACUZoster) - design and protocol of a randomised controlled trial.**

OMM in Herpes Zoster

- As adjuvant therapy **AFTER** acute phase to help prevent post herpetic neuralgia
  - Suboccipital decompression to normalize the peripheral nervous system
  - Muscle energy to upper thoracic and cervical regions
  - Rib raising to normalize the sympathetic nerves
Postherpetic Neuralgia

- Most common complication of Herpes Zoster (Shingles)
- Neuropathic pain that persist after the skin lesions have healed
Adjunctive treatments for PHN


**Topical capsaicin. A review of its pharmacological properties and therapeutic potential in post-herpetic neuralgia, diabetic neuropathy and osteoarthritis.**

**Rains C¹, Bryson HM.**

**Drugs.** 2004;64(9):937-47.

**Review of lidocaine patch 5% studies in the treatment of postherpetic neuralgia.**

**Davies PS¹, Galer BS.**


**Intravenous administration of vitamin C in the treatment of herpetic neuralgia: two case reports.**

**Schencking M¹, Sandholzer H, Frese T.**
Stasis Dermatitis

- Common in older patients with cardiac insufficiency and venous incompetence
- 2/2 gravity and increased hydrostatic pressure → leaky vessels
- Hemosiderin deposits → hyperpigmentation (MC supramalleolar)
  - pronounced erythema and scaling (MC medial malleoli)
  - May be dry and pruritic
  - May have vesiculation, oozing, and ulcerations
Stasis Dermatitis Management

Medical Management:
• Support stockings (knee high, moderate: 20-30 mmHg pressure)
  • in the morning when leg is least edematous
• Ace wraps
• Leg elevation
• Topical steroids
• Compresses if weeping

OMM:
• **First, open Thoracic inlet!!**
  • Direct or indirect myofascial release
• Lymphatic pump, effleurage
  • May decrease edema and thus improve condition and decrease the incidence of venous stasis ulcers
OMM for Stasis Dermatitis

**Open thoracic inlet:** superior and medial border of left clavicle via direct or indirect myofascial release

**Effleurge:** Stroking of appendage from distal to proximal

**Pedal pump**

Pedal lymphatic pump using dorsiflexion, with contraction of the posterior compartment of the lower extremity.
Lipodermatosclerosis

- Inflammatory disease of the subcutaneous fat 2/2 chronic venous insufficiency
- Unknown pathogenesis
- Erythematous tender plaques, usually on lower extremities
  - Acute: <1 month
  - Subacute: 1 month to 1 year
  - Chronic: greater than 1 year
Lipodermatosclerosis

- Painful, symmetric, red to purple, poorly demarcated, indurated plaques in a stocking like distribution
Lipodermatosclerosis Medical and Osteopathic Management

• Compression therapy
• Stanozolol – androgen and anabolic steroid
• Pentoxifylline – xanthine derivative/anti-inflammatory
• Antibiotics
• ILK
• Foam sclerotherapy
• Danazol

OMM
• Similar to stasis dermatitis
  • Open thoracic oulet
  • Effleurage/Pedal pump
• Can add manual stretching to help the fibrosis
Complementary therapy? $$$


**Refractory lipodermatosclerosis treated with intralesional platelet-rich plasma.**

Jeong KH, Shin MK, Kim NI.
Elephantiasis Nostras Verrucosa

• Rare complication of chronic obstructive lymphedema

• Pathogenesis:
  • Repetitive streptococcal infections, obesity, poor lymphatic drainage

• Massive constant leg and foot edema with generalized lichenification, hyperkeratotic verrucous plaques, coarsening, corrugation, and fissuring
  • Malodorous

• Treatment is challenging
Elephantiasis Nostras Verrucosa
Medical and osteopathic management

• Similar to stasis dermatitis
  • Support stockings (knee high, 20-30 mmHg pressure)
  • Leg elevation
  • Topical steroids
  • Compresses if weeping
  • Unna boot
  • Surgery

• Lymphatic osteopathic manipulation
  • Open thoracic outlet
  • Pedal pump
  • Effleurage
Hyperhidrosis
Hyperhidrosis

- Affects 1-5% of population.
- Family history,
- Primary and Secondary causes
- Excessive sweating, typically affecting palms, axilla and soles
  - Cholinergic – excessive thermoregulation
- Somatic dysfunction findings
  - T2-T3 dysfunction
Hyperhidrosis

• Suggested diagnostic criteria for primary focal hyperhidrosis:
  • Focal, visible, excessive sweating of at least six months duration without apparent cause
  • Plus at least two of the following:
    • Bilateral and relatively symmetric
    • Impairs daily activities
    • At least one episode per week
    • Onset before age 25
    • Family history of idiopathic hyperhidrosis
    • Focal sweating stops during sleep
Pathogenesis
Current hyperhidrosis treatment and OMM

• Topical aluminum chloride hexahydrate (Drysol)
• Topical anticholinergics
  • Newly FDA approved (2018): glycopyrronium cloth wipes (Qbrexza) for primary axillary hyperhidrosis for age >9 yo
• Oral anticholinergics
• Tap water Iontophoresis
• Botulinum A neurotoxin
• Liposuction and surgical excision (axilla)
• Sympathectomy

OMM
• Suboccipital release, rib sympathetic inhibition
OMM for hyperhidrosis

**Suboccipital release**

- place fingertips into patient’s suboccipital region bilaterally
- apply vertical anterior pressure until occiput rests on palm of hand
- complete with gentle cephalad force on occiput
Rib Sympathetic Inhibition Technique

**T1-T12**
- place hands palms up under thorax and apply anteriolateral force on rib angles for >90 seconds
- *<30 sec stimulates sympathetiic ANS!

**T12-L2**
- place hand with finger pads touching the far side erector spinae and thenar eminance touching the near side erector spinae and squeeze together for >90sec
• Benefits of OMM for skin conditions as adjuvant therapy
• OMM to address physiologic effects of stress (Emmet et al, JAOA 2018; 118(2):e11)
  • Suboccipital depression → induce parasympathetic
  • Rib sympathetic inhibition → decrease sympathetic tone
• Lymphatic treatment for inflammatory skin diseases (Hibler, JAOCD 2014)
  • Open thoracic outlet/Pedal pump/effleurage
Conclusions

- Instilled in dermatology are osteopathic principles
- Multifaceted field
- Whole person approach: body, mind, and spirit
- Think “outside the box”
- Osteopathic manipulation can be an adjunctive therapy that can benefit our dermatology patients
“To find health should be the object of the doctor. Anyone can find disease.”

- A.T. Still, MD, DO
Questions?
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THANK YOU, NEXT!