Contact:

Sam Russo ND, LAc

Vermont Naturopathic Clinic PLC

41 IDX Drive Suite 220

South Burlington, VT 05404

802-448-3388

[info@naturopathicvermont.com](mailto:info@naturopathicvermont.com)

Presenter: Sam Russo ND, LAc

Presentation length: 60 minutes

Presentation title: Injection Therapies in Naturopathic Practice

Brief Description of Presentation:

Injection Therapies in Naturopathic Practice will provide a broad survey of the therapeutic use of injection therapies commonly used in the outpatient setting for pain management and musculoskeletal injuries to an audience predominantly comprised of practicing naturopathic physicians. This presentation will be predominately devoted to the injection of various pharmacologic substances.

Learning Objectives:

1. Provide an overview of the common types of injections used in naturopathic practice
   1. Intradermal
   2. Subcutaneous
   3. Intramuscular
   4. Tendon
   5. Ligament/periarticular
   6. Intraarticular
2. Discuss the difference between the amide and PABA based anesthetics
   1. Dosage
   2. Duration of effectiveness
   3. Metabolism
   4. Indications
   5. Contraindications
   6. Toxicity
3. Discuss the role of pitcher plant extract (Sarapin) in the treatment of neuritis
4. Provide an overview of the role of corticosteroid injection in naturopathic practice
5. Brief introduction to other injection therapies
   1. Neural therapy
   2. Mesotherapy (for pain management, not cosmetic)
   3. Viscosupplementation

Outline

1. What are the roles of injection therapies?
   1. Promote cellular activity: healing i.e. regenerative injection therapy or prolotherapy
      1. Traditional prolotherapy
      2. Platelet rich plasma injection
   2. Suppress cellular activity: suppression
      1. Corticosteroid injections
   3. Modulate neurological signaling
      1. Trigger point injection
      2. Sarapin
      3. Corticosteroids
      4. Mesotherapy
   4. Mechanical agents
      1. Viscosupplementation
2. Regenerative Injection therapy
   1. Brief history
   2. Mechanism of action
   3. Indications
      1. Ligamentous laxity
      2. Tendinosis
      3. Muscular tears
      4. Degenerative joint disease
   4. Commonly used agents
      1. Local anesthetic: procaine vs lidocaine
      2. Dextrose
      3. Platelet rich plasma
      4. Other agents
   5. Course of treatment
3. Viscosupplementation (synthetic synovial fluid injection )
   1. Brief history
   2. Mechanism of action
   3. Indications
   4. Commonly used agents
   5. Course of treatment
4. Corticosteroid injection
   1. Brief history
   2. Mechanism of action
   3. Indications
      1. Conventional vs. Naturopathic
      2. Focal neural inflammation
   4. Commonly used agents
      1. Methyl derivatives
      2. Fluorinated derivatives
   5. Course of treatment
5. Neuropathic pain and injection therapy (beyond corticosteroids)
   1. Sarapin
      1. Brief history
      2. Mechanism of action
      3. Indications
      4. Course of treatment
   2. Mesotherapy
      1. Brief history
      2. Mechanism of action
      3. Indications
      4. Commonly used agents
         1. Salmon Calcitonin
         2. Multiple vitamin or B vitamin complex
         3. Pentoxifylline
      5. Course of treatment
   3. Trigger point Injection
      1. Brief history
      2. Mechanism of action
      3. Indications
      4. Commonly used agents

Biography

Sam Russo ND, LAc graduated from Bastyr University in 2002. He completed a 1 year residency in naturopathic family medicine under Mary Bove ND and continues to practice in her clinic as an associate until 2004. From 2004 to 2011 Dr. Russo worked in association with Jonathan Fenton DO who mentored him in musculoskeletal ultrasound and injection therapies. Dr. Russo is a member of the American Academy of Pain Management, the American Institute for Ultrasound in Medicine and will test for the newly recreated Registry for Diagnostic Musculoskeletal Ultrasonography in the spring of 2013. His practice includes primary care as well as specialization in acute and chronic neuromusculoskeletal conditions.