

Speaker Series Summary Episode 4: Pain and Integrated Pain Management Practice

Overview

In this episode of our Speaker Series, Dr. Linda Bluestein, a board-certified anesthesiologist, integrative pain medicine physician, former ballet dancer, and expert in hyper-mobility disorders, who shares her experience and expertise on pain and pain management through the acronym MENS PMMS.

Summary

<p>MENS PMMS</p> <p>(Movement, Education, Nutrition, Sleep, Psychosocial, Modalities, Medications, Supplements)</p>	<p>It is the duty of a physician's to look at pain from a holistic viewpoint by understanding a patient's history, the patient as a person, how they feel and function, and how their way of thinking impact's their health.</p> <p>The goal is to improve a patient's functional capacity and quality of life so Dr. Bluestein will often ask for the level of pain from 1 to 10.</p> <p>"MENS PMMS" is not an exhaustive list but a sampling list of possible solutions to pain supported by clinical research and literature</p>
<p>Definition of Pain</p>	<p>The subjective experience influenced by varying degrees of biological, psychological, and social factors</p> <ul style="list-style-type: none"> • It is not the same as nociception: the experience of pain cannot be reduced to activity in sensory pathways <ul style="list-style-type: none"> ◦ It is determined through our life experiences and our conception of pain • All reports of pain should be accepted and respected, yet not all physicians will neglect their biases • Pain serves as an adaptive role that can have adverse effects on function, social, and psychological well-being <ul style="list-style-type: none"> ◦ Pain is necessary to living longer and understanding imbalances in the body • Verbal Descriptions are only one of several behaviors <ul style="list-style-type: none"> ◦ the failure to communicate does not mean that there is no pain • Pain is not always psychiatric and and be solely physiological with the inhibition and facilitation of pain signals

<p>Definitions of Pain</p>	<p>Three Types of Pain</p> <ul style="list-style-type: none"> • Nociceptive Pain: Direct or potential tissue pain such as your hand being too close to the fire • Neuropathic Pain: There is a problem in the nervous system such as nerve damage • Nociplastic pain: Processing of nerve signals, dysfunction of the “software” that contributes to how much pain is felt <ul style="list-style-type: none"> ◦ If you have neuropathic pain, you are at risk of Nociplastic pain
<p>Movement</p>	<ul style="list-style-type: none"> • Finding the appropriate movement intervention is important to understanding why things are not moving • Sensory, psychological, and motor processing factors associated with the pain experience must be considered as movement • There is a dynamic relationship between the system of pain processing, movement adaptation, and recovery • Movement-evoked pain must be considered when establishing a movement-based plan to compliment the individual’s presentation • There is a difference between pain that signifies progress and pain that signifies harmfulness such as red, yellow, and green lights <ul style="list-style-type: none"> ◦ Red: movement causing pain that you will pay for in the next day or couple of days ◦ Green: movement that can be done in the next day without flare-ups
<p>Education Pain Neuroscience Education (PNE)</p>	<p>Goal: Optimize a patient’s beliefs/perceptions of pain to facilitate and encourage positive, adaptive and effective coping strategies</p> <ul style="list-style-type: none"> • Understanding neurophysiological-endocrine-immune changes that occur in the central nervous system (CNS) with chronic pain is essential • When you change your beliefs of pain, you change how the body feels and responds such as improved pain-coping strategies, and improved health status • Understand the severity of kinesiophobia (fear of moving) and pain catastrophizing is important • Brain centers involved in pain processing communicate to interpret and contextualize pain which includes the emotional centers like the Amygdala • Being more prone to anxiety and depression influences the pain experience

<p>Nutrition</p>	<ul style="list-style-type: none"> • Food alters bodily chemistry such as increasing and decreasing inflammation • The gut microbiome influences systemic and CNS inflammation <ul style="list-style-type: none"> ◦ Our gut makes our neurotransmitters that affect pain (going from acute to chronic) • Dieticians and Nutritionist can be helpful in managing pain
<p>Sleep</p>	<ul style="list-style-type: none"> • Chronic pain syndromes are associated with desynchronization of circadian and biological rhythms • Melatonin has analgesic effects that can improve migraines, fibromyalgia, irritable bowel syndrome, pre-operative anxiety, and post-operative pain
<p>Psychosocial</p>	<ul style="list-style-type: none"> • Both Kinesiophobia (the fear of movement) and pain catastrophization are common • Prior injury experience increases anxiety and catastrophization about future injury • Unpredictable symptoms lead to activity restrictions to avoid pain and injury • Understanding what one needs is important <ul style="list-style-type: none"> ◦ Therefore, this extends to family member who can interfere with pain management • “You deserve to have a counselor, so try out a few”
<p>Modalities</p>	<p>Here is a list of modalities to consider:</p> <ul style="list-style-type: none"> • Acupuncture • Acupressure • TENS (Transcutaneous Electrical Nerve Stimulator) • Ozone therapy • Oxygen • Neuromodulator devices • Virtual Reality (VR) • Light Therapy such as red light that can improve blood flow and collagen production

Medication

- Many treatments used are “off-label” but are borrowed from other conditions
- Sometimes we have unrealistic expectations from medication so when medication fails, it can be a result of the wrong dose, excipients (ingredients), titration (concentration method), etc
- Be aware of the placebo effect!
- New trial and pharmacogenomic testing can be benefits but can also have limitations

Here is a list of Medications to consider for pain management:*

- Opioids: blocks pain signals
- Low Dose Naltrexone (LDN): may slowly reduce pain severity, hyperalgesia, physical function, inflammation
- Cannabinoids: regulates proliferation and migration of immune cells and may reduce nociception, anxiety, inflammatory response and migraine pain
- Ketamine: reduces pain sensations

*Due to the inability to accurately quantify pain experienced by a patient, always consult your doctor or mental health professional as well as talk to your insurance provider because some medications may not be covered

Supplements

- The FDA regulates supplements as food, not drugs so be aware that they may interact with other supplements and/or medications
- Supplements have powerful biological effects so be aware of the 10% rule
 - 10% rule: you should no exceed 10% of the daily recommended allowance (RDA) of a particular nutrient
- Always eat food before taking any nutraceuticals

Here are a list of Supplements to consider for pain management:

Magnesium

- Second most common intra-cellular cation
- Physiologic functions include protein synthesis, signaling, and neurotransmission
- Antinociceptive- inhibits central sensitization and decreases preexisting pain hyper sensitivity
- Supplementation improves dysmenorrhea, fibromyalgia and migraines

<p>Supplements</p>	<p>Omega 3 PUFA</p> <ul style="list-style-type: none"> • Improves inflammation-mediated pain • Antinociceptive properties appears to benefit pain independent of the well-established inflammatory pathways <p>Vitamin D</p> <ul style="list-style-type: none"> • Deficiency is frequently observed in FM and CMP patients • Hypovitaminosis D activates inflammatory cytokines influencing central and peripheral pain reception + contributes to sarcopenia and impaired muscle strength and poor muscle mass • Low vitamin D increases prostaglandin release and impairs immune cell responses • There is no reliable blood test to detect magnesium deficiency but test are reliable for vitamin D
<p>Questions for the Speaker</p>	<p>What are some options for a person with sudden acute pain versus persistent pain?</p> <ul style="list-style-type: none"> • First, determine if this pain is a flare-up of a pervious problem or is it a new acute problem <ul style="list-style-type: none"> ◦ If it is different, talk to your doctors and stress that the pain is new and different from typical chronic pain because physicians can be more insensitive when they see that you have other chronic issues <p>Do you have any thoughts on why people experience no pain during the diagnosis process and then suddenly experience nerve pain?</p> <ul style="list-style-type: none"> • “Anytime there is a change, we, as physicians, need to understand why, so that we can better diagnose and treat patients” • Talk to your doctor about your history with the illness which includes treatments, what you could’ve done, and what you can’t do <p>Do you see any correlation between autoimmune conditions and pain?</p> <ul style="list-style-type: none"> • “Definitely! there is a much higher prevalence of pain with autoimmune conditions because of its effect on mast cells”

Relevant Resources

Treatment guidelines - [Treatment guidelines - Centers of Excellence: https://www.gbs-cidp.org/support/centers-of-excellence/](https://www.gbs-cidp.org/support/centers-of-excellence/)

Treatments & Access page – <https://www.gbs-cidp.org/treatments-access/>

Centers of Excellence - <https://www.gbs-cidp.org/support/centers-of-excellence/>

Doctor to Doctor consult - <https://www.gbs-cidp.org/doctor-to-doctor/>

Health Navigator - <https://www.gbs-cidp.org/health-navigator/>

*Special thanks to Dr. Linda Bluestein, MD - Hypermobility MD