

Neuropathic Pain

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Update Alert!!!

ACP Guidelines on Low Back Pain

- Acute – non-drug therapy first, then NSAIDs
- Chronic – non-drug therapy first, NSAIDs (1st), tramadol (2nd), duloxetine (2nd)
 - “Only consider opioids as an option in patients who have failed the aforementioned treatments and only if the potential benefits outweigh the risks for individual patients and after a discussion of known risks and realistic benefits with patients”

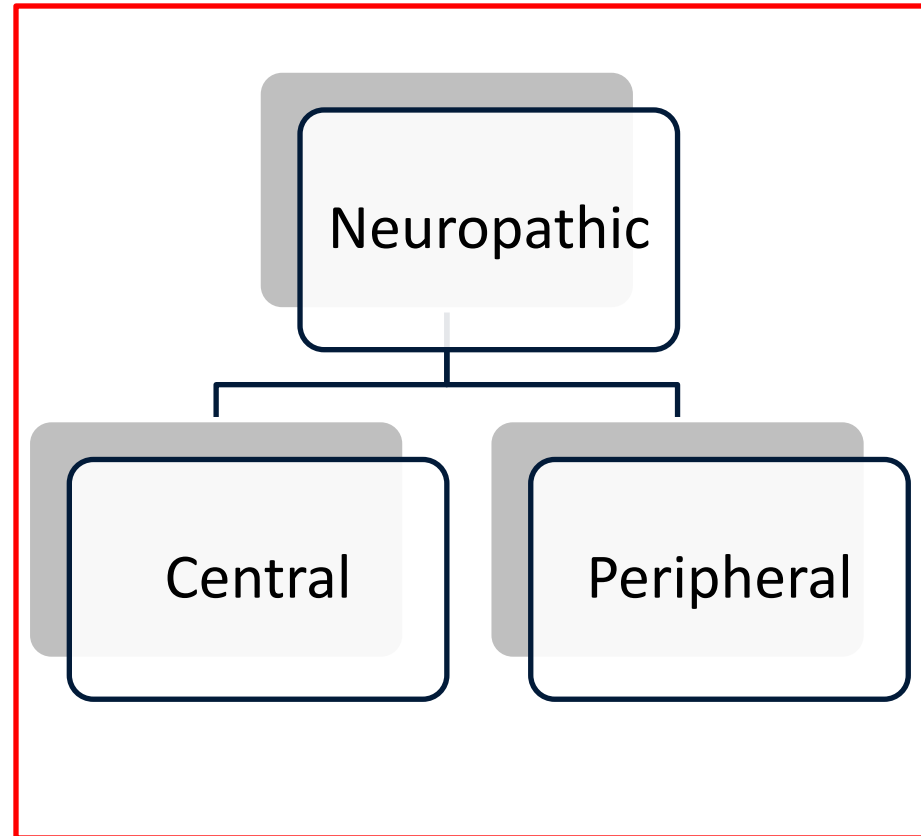
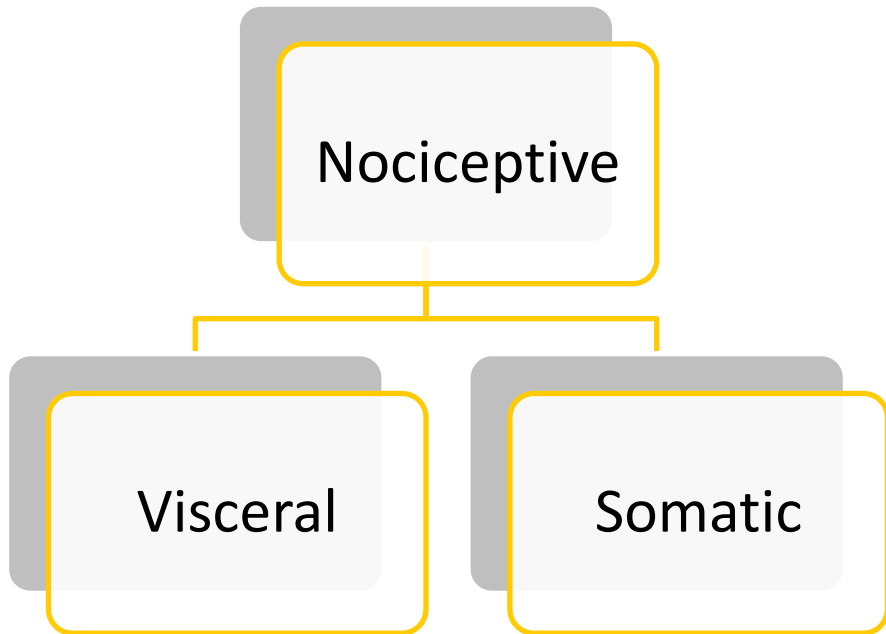
Learning Objectives

- Describe the role of analgesics in the management of neuropathic pain syndromes
- Create a safe and effective regimen for various neuropathic pain syndromes

Outline

- The basics
 - Assessment
 - Goals
- Neuropathic analgesics
 - Treatment
 - Monitoring

Pathogenesis



Assessment of Pain

- P – what **P**rovokes the pain?
- Q – **Q**uality of the pain?
- R – does the pain **R**adiate?
- S – **S**everity of the pain?
- T – **T**ime of the pain?

Assessment of Pain

- Thorough patient history
 - CC, HPI, ROS, PMH
- Validated pain scales (visual analog scales)
- Physical exam
- Imaging and diagnostic studies

Goals of Chronic Pain Management

- Keep patient functional
- Improve mental health
- Decrease pain perception and dependence on drug therapy
- Decrease rate of physical deterioration
- Reduce pain as much as possible without undue adverse effects

Non-Pharmacologic Therapy

- Physical/Occupational therapy
- Transcutaneous electrical nerve stimulation
- Psychotherapy
- Cold/heat
- Massage
- Prayer/meditation/spiritual
- Distraction
- Exercise
- Music

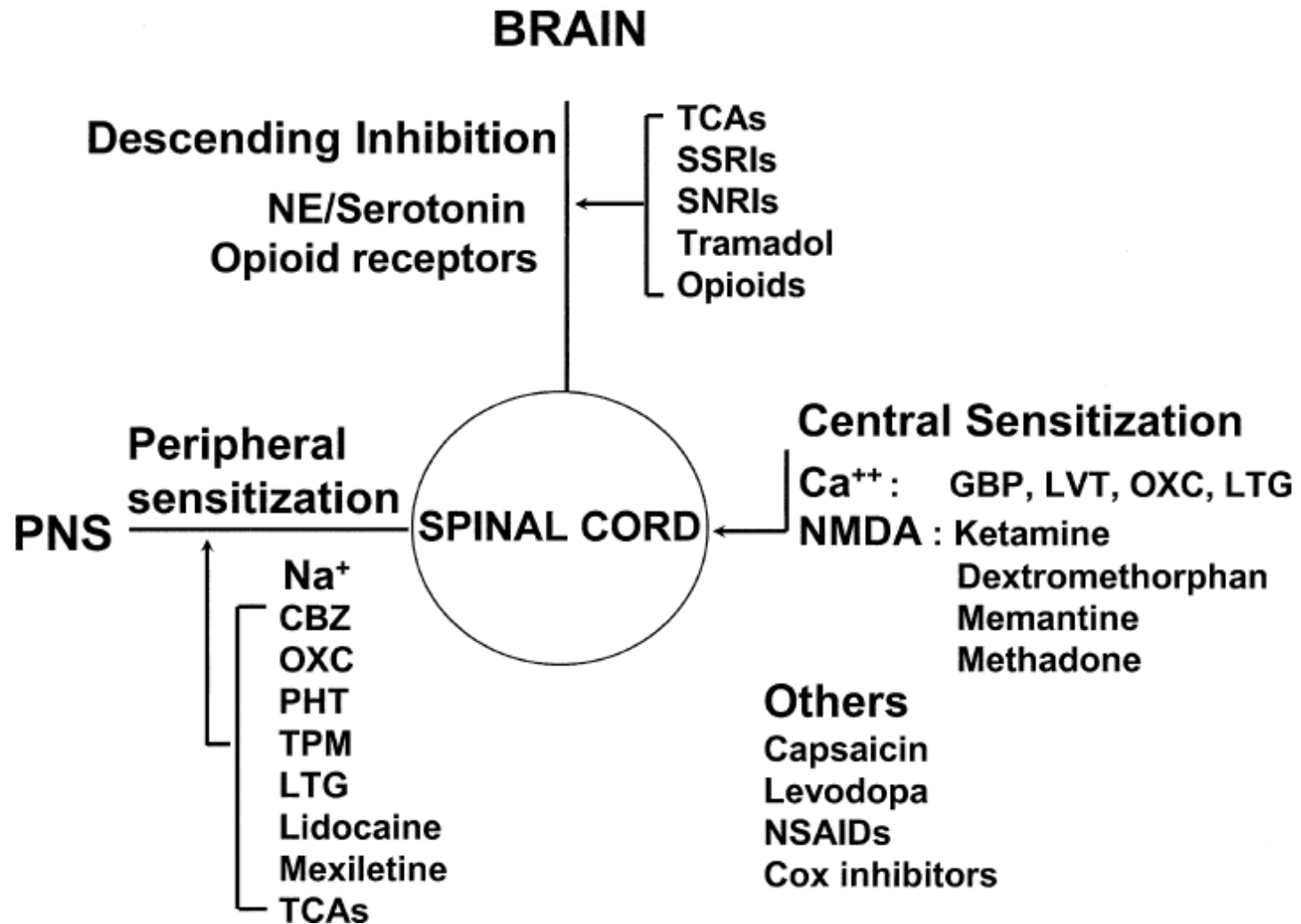
Pharmacologic Options

- Acetaminophen
 - NSAIDs
 - Muscle relaxants
 - TCAs
 - SSRIs, SNRIs
 - Gabapentinoids
 - Anticonvulsants
 - Anti-arrhythmics
 - Lidocaine
 - Capsaicin
 - Opioids
 - Ketamine
 - Corticosteroids
 - Bisphosphonates
-
- The diagram uses blue brackets to group the list of pharmacologic options into four categories on the right side of the slide. The first bracket groups Acetaminophen, NSAIDs, Muscle relaxants, and TCAs. The second bracket groups SSRIs, SNRIs, Gabapentinoids, Anticonvulsants, and Anti-arrhythmics. The third bracket groups Lidocaine and Capsaicin. The fourth bracket groups Opioids, Ketamine, Corticosteroids, and Bisphosphonates.
- Role in neuropathies?
- Neuropathic agents
- Role in neuropathies?
- Advanced pain management

Case

- JS is a 47 year old female complaining of worsening pain
- PMH:
 - Hypothyroidism
 - Hypertension
 - T1DM
 - ESRD on HD (MWF)
 - Peripheral arterial disease
 - OSA on CPAP
- How do you want to treat?

Neuropathic Pain



Treatment Options

Drug	CV	Renal	Liver	Notes
Amitriptyline	X	✓	✓	Sedating, ACh
Nortriptyline	X	✓	✓	Orthostasis
Imipramine	X	✓	✓	Sedating, ACh
Duloxetine	✓	X	X	
Venlafaxine	Caution	Caution	Caution	Headaches, low = SSRI
Gabapentin	✓	Caution	✓	Renal dosing
Pregabalin	✓	Caution	✓	Renal dosing
Carbamazepine	Caution	Caution	Caution	Drug interactions
Lamotrigine	✓	Caution	Caution	Renal/Hepatic dosing
Opioids	✓	No morphine	Extend tramadol frequency	
Lidocaine	X	✓	✓	Consider smaller areas of treatment

Treatment Options

Drug	Initial Dose (mg)	Target Dose (mg)	Maximum Daily Dose (mg)
Amitriptyline	25 QHS	100 QHS	150
Nortriptyline	25 QDay	100 QDay	150
Imipramine	25 QHS	100 QHS	150
Duloxetine	30 QDay	60 QDay	60
Venlafaxine	75 QDay	150-225 QDay	225
Gabapentin	300 QDay	1800 TDD	3600
Pregabalin	50 TID	100 TID	600
Carbamazepine	200 QDay	400-800 QDay	1200
Lamotrigine	25 QDay	200-400 QDay	600
Opioids	LOWEST	LOWEST	LOWEST
Lidocaine	One patch	-	Three patches

Neuropathic Pain

- JS is a 47 year old female complaining of worsening pain
- PMH:
 - Hypothyroidism, hypertension, T1DM, ESRD on HD (MWF), peripheral arterial disease, OSA on CPAP
- Patient was receiving: Amitriptyline, gabapentin, oxycodone/acetaminophen

Monitoring

- Onset of analgesic effect
- Duration of analgesic effect
- PRN medication use
- ADEs of medications
- Concomitant medication use

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