



Peripheral Diabetes-Related Neuropathy: It's a Pain

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Background

Def: microvascular complication of DM involving peripheral nerve damage leading to decreased sensation

Stats: most common type of complication, affects up to 50% patients, generates most morbidity of all DM complications

Symptoms: numbness, loss of sensation, sharp pain, muscle weakness, tingling, burning, sensitivity to touch

Diagnosis: FPG, A1c, tuning fork, monofilament, CBC, CMP, B-12, folate level, thyroid panel, CRP

Risk Factors

1. Hyperglycemia
2. Long DM duration
3. Having DM2
4. Dyslipidemia
5. Obesity (height)
6. Hypertension
7. Advanced age
8. Tobacco use
9. Heavy alcohol use

Complications

- Sensory nerve loss
- Foot ulcers and infections
- Falls and fractures
- Depression
- Lower limb amputations
- Foot deformities
- May cause significant morbidity and mortality
- Reduce QOL

Preventive Care and Non-Drug Options

1. Preventive Care
 - a. Glycemic control
 - b. Foot care/exams
 - c. BP control
 - d. Cholesterol reduction
 - e. Smoking and alcohol cessation treatment
 - f. Weight management
2. Screening
 - a. Annual comprehensive foot exam
 - b. Thorough review of medical history
3. Non-drug options
 - a. Diet and nutrition
 - b. Exercise and PT
 - c. Education
 - d. Appropriate footwear

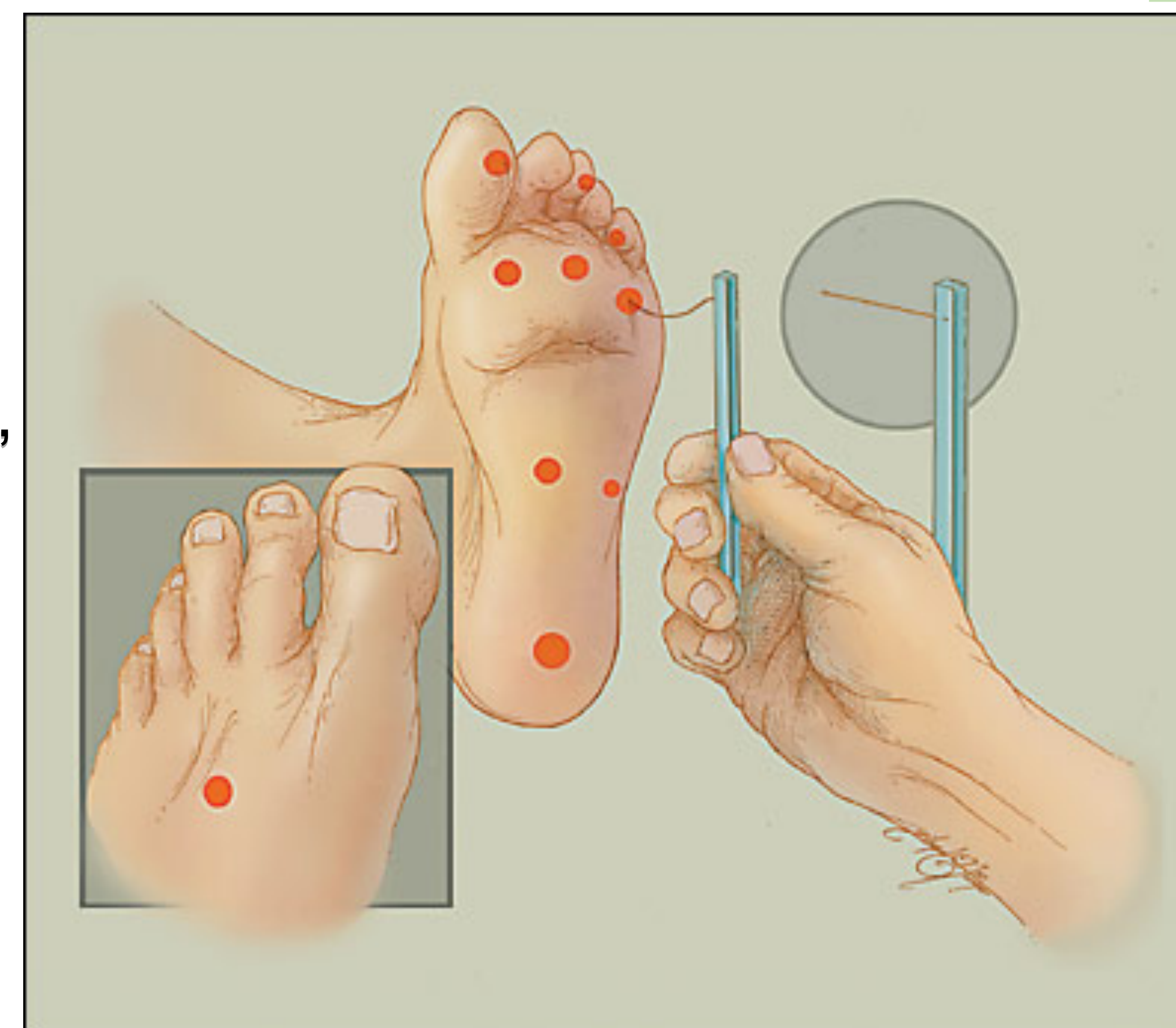
Foot Exam

Physical Exam

- Observation of gait
- Examine shoes and socks
- Pulses present
- Temperature test
- Note deformities
- Swelling or erythema
- Monofilament
- Tuning fork

Visual Exam

- Hair growth
- Skin broken or cracked, dry or flaky
- Toenails ingrown, thick, discolored



Pharmacotherapy Options

Gabapentoids

- Gabapentin
- Pregabalin

SNRIs

- Duloxetine
- Venlafaxine

TCAs

- Amitriptyline
- Nortriptyline

Antiepiletics

- Lamotrigine, Oxcarbazepine, Lacosamide

- Initial treatment should consider mood and sleep as they impact pain perception
- Concomitant conditions, other medications, adverse effects should be considered when selecting therapy (depression, insomnia, cardiovascular, sedatives)
- Similar efficacy. Allow at least 12 weeks
- Can consider combination therapy
- Gradual titration
- Cautious use in senior population

Other Treatment Options	
Dual Opioids/SNRI	Tramadol, Tapentadol
Topicals	Capsaicin, Lidocaine
Supplements	Alpha Lipoic Acid, Vitamin B

REFERENCES

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