Be a Know-It-All: Diabetic Peripheral Neuropathy

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PFA 55th Annual Symposium October 24-26, 2014

Objectives

• Facts
• Define Diabetic Peripheral Neuropathy
  • Diagnosis and symptoms
• Complications related to diabetic neuropathy
• Patient education
• Treatment
**FACTS**

- 2000 - 11 million diabetics/US
- 2050 – 29 million/US
- Most common symptomatic complication of diabetes
- 30-40% Type 2 DM have distal PN
- 25% develop an ulceration
- Amputations annually

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**Diabetic Peripheral Neuropathy**

Nerve damage caused by chronically high blood sugar levels and diabetes. Leads to numbness, loss of sensation, and sometimes pain in hand and feet.

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**Diagnosing Peripheral Neuropathy**

- Brief history
- Diabetic Foot exam
- Monofilament
- Vibratory sensation
- EMG/NCV
- Patient’s subjective statement-ask certain questions
What is Monofilament Testing

- 5.07/10g monofilament nylon wire
- Demonstrate first
- Patient to close eyes

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Semmes-Weinstein Testing

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Vibratory Testing

- Strike tuning fork on palm of your hand
- Show the patient feeling of vibration
- Close eyes
- Place on 1st metatarsal on “bunion area”
Vibratory Testing

The Importance of Knowing

- Most important risk factor for both ulceration and amputation
- Early detection most important criteria to identify high-risk patients for foot complications

Risk Factors for Diabetic Neuropathy

- Age
- Duration
- Uncontrolled blood glucose
- Obesity
- High blood pressure
- Smoking
- CAD
- PAD
- Triglyceride levels
Symptoms

- None
- Pain
- Tingling
- Numbness
- Pins and needles
- Sharp
- Prickling
- Burning
- Sensitivity to touch
- Loss of pain
- Decreased temperature sensation
- Ulceration

Bilateral

Worse at night

Prevention of DPN

- Strict blood sugar control
- Clinical monitoring

Complications related to DPN

- Symptoms
- Ulcerations
- Possible loss of limb
- Charcot deformity
Charcot Arthropathy
- Neuropathic fractures
- "Rocker foot"

Charcot Arthropathy X-rays

Heel Decubitus Ulcerations
Be Suspicious!

Patient Education
- Diabetic foot exams
- High risk diabetics
- Diabetic shoes
- Accommodative diabetic insoles
- Protect and Inspect
- Controlling blood sugars
- Inspecting feet twice daily

Inspect
What Now?
Treatment for Painful Neuropathy

- Control glucose
- Narcotics
- Anti-depressants
- Seizure medications
- Vitamin supplementations
- Creams

Resources


- Nalini Singh, MD; David G. Armstrong, DPM; Lawrence A. Lavery, DPM, MPH; Steven A. Vela; Terri L. Quebedeaux, DPM; John C. Fleischli, DPM. Arch Intern Med. 1998;158(3):289-292. doi:10.1001/archinte.158.3.289


- http://care.diabetesjournals.org/content/24/11/1936.long Diabetes Care, Projection of Diabetes Burden Through 2050

- http://www.cdc.gov/media/pressrel/2010/r101022.html Centers for Disease Control and Prevention


Thank you for your time.

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