

## Case 2

### Lower Extremity Case – CAPM&R Review Course

A 60 year-old woman presents with an insidious onset of bilateral distal lower extremity/foot pain, numbness, and paresthesia over the last 20 months. She reports that when she walks it feels like she is “walking on marshmallows”.

1. What **specific** questions do you want to ask to narrow down your differential diagnosis? (ie. list pertinent positive and negative findings)

*Discuss as a group and when ready go to the next question*

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### **Pain history questions (SOCRATES):**

**Site?** – diffuse bilateral distal feet and ankle

**Onset?** – Insidious

**Character?** - neuropathic descriptors (tingling, numbness, electrical shocks and burning sensation intermittently)

**Radiation?** – local/proximal radiation to distal one third of leg

**Associated Symptoms?** - recent onset of similar symptoms in bilateral hands, worse at night during sleep, frequent night awakening, imbalance, constitutional symptoms, weakness (ie. Foot drop).

**Time duration?** – 20 months

**Exacerbating and alleviating factors?** – no specific factors

**Severity?** - moderate (5-7/10)

**Distribution of symptoms?** - Distal vs proximal, symmetric vs asymmetric

### **Past Medical History:**

- **Positive history** of Type 2 Diabetes Mellitus x 12 years (cannot remember last HbA1c level and does not check blood glucose levels at home) and Hyperlipidemia
- **Negative history** of thyroid disease, B12 deficiency (eats meat), liver disease, HIV risk factors, or cancer

### **Family History:**

- Positive for Type 2 Diabetes Mellitus in mother

### **Medications:**

- Metformin 500 mg bid
- Empagliflozin 12.5 mg bid
- Gliclazide 60 mg q breakfast
- Atorvastatin 10 mg qhs

**Allergies:** No known drug allergies

### **Social History:**

- **Negative history** for smoking, alcohol, recreational drugs, heavy metal/lead

2. Based on this history, describe the physical examination you will perform and any specific things you are looking for.

*Discuss as a group and when ready go to the next question*

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### **Inspection:**

skin trophic changes (autonomic) - shiny swollen skin or dry skin, brittle nails, absence of hair in distal one third of leg

ulcers – none

muscle mass asymmetry and fasciculations – none

### **Palpation –**

Distal pulses (rule out vascular claudication) – normal

Temperature – cold clammy feet

**Gait analysis on short stride walking** – slow, wide based gait

**Test of balance** – tandem gait and Romberg test.

Findings – walks in straight line with difficulty, Romberg positive for sensory ataxia

**Lower back exam** – inspection, palpation, lumbar ranges of motion, Facet loading test.

Palpation. Straight leg test

Findings – normal

### **Neurological exam –**

- **Cranial Nerves** - normal

- **Sensory exam**

**Light touch and pinprick:** Reduced light touch and pin prick sensation in diffuse distal third of leg, ankle and foot bilaterally and fingertips of all fingers.

○ **Semmes Weinstein 10g Monofilament testing** (optional) – inability to feel in bilateral feet and ankles, normal perception at knees.

○ **Proprioception:** Impaired proprioception at the great toes bilaterally with normal proprioception at the ankles.

○ **Temperature testing with hot and cold test tube** – impaired temperature perception to both hot and cold in both ankles and feet

○ **Vibration testing** (tuning fork – 256 Htz) – reduced at distal joints – ankle and great toe, and, normal at knees and above.

- **Motor strength testing** – all myotomes of lower extremity – normal

- **Deep tendon Reflexes** – 1+ for both Achilles and 2+ for knee.

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3. What investigations do you want to order to confirm your diagnosis? (eg. imaging, bloodwork etc.)

*Discuss as a group and when ready go to the next question*

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4. What is the most likely diagnosis? Assuming all of your investigations confirm the diagnosis (and rule out other diagnoses), provide a comprehensive psychiatric treatment plan (ie. for treatment of current symptoms and prevention of symptom progression).

***Be prepared to present this case and your answers to the larger group***