WHAT IS PAD?

Spectrum of PAD

ASYMPTOMATIC
CLAUDICATION
REST PAIN
ISCHEMIC ULCERS
GANGRENE/LOSS OF TISSUE
What causes the pain associated with claudication?

- Metabolism changes from aerobic to anaerobic with lack of blood & oxygen
- Byproduct of anaerobic metabolism is lactic acid
- Lactic acid causes pain

RISK FACTORS

- SMOKING
- DIABETES
- OBESITY
- HYPERTENSION
- HYPERLIPIDEMIA
- AGE
- RACE
- LACK OF EXERCISE/AMBULATION
DIAGNOSTIC MODALITIES

- HISTORY
- PHYSICAL EXAM
- NON-INVASIVE ARTERIAL STUDIES
  - ABIs & US/DUPLEX
- CTA/MRA
- DIAGNOSTIC CATHETERIZATION/ARTERIOGRAM

OBSTACLES TO OBTAINING DIAGNOSES

- POOR HISTORIAN
- BODY HABITUS (OBESITY)
- ACCESS DIFFICULTIES
- EQUIPMENT
- LACK OF INSURANCE/FUNDS
- CONTRAST ALLERGIES
- RENAL DYSFUNCTION
- OBSTINANCE/NON-COMPLIANCE

TREATMENT OPTIONS FOR PAD

- REDUCTION OF RISK FACTORS
- MEDICATIONS – i.e. ASA, Plavix, Pletal, Statins
- DIETARY
- INTERVENTIONAL/MINIMALLY INVASIVE PROCEDURES
- SURGICAL BYPASS
- LOCAL WOUND CARE/WOUND CENTERS
- AMPUTATION
- EXERCISE PROGRAM (SET)
- EDUCATION

REDUCTION IN RISK FACTORS

SMOKING CESSATION
BLOOD SUGAR CONTROL/REDUCE A1C
CONTROL CHOLESTEROL
CONTROL OF HIGH BLOOD PRESSURE
ROUTINE EXERCISE

INVASIVE OPTIONS

- CATHETER ANGIOGRAPHY
- ANGIOPLASTY
- AHERECTOMY
- STENT PLACEMENT

ADJUNCTS TO INTERVENTION

- CO2
- IVUS
- PRESSURE GRADIENTS
- DIFFERENT VASCULAR ACCESS ENTRY SITES
- NUMEROUS CATHETERS, WIRES, BALLOONS, STENTS, AND AHERECTOMY DEVICES
- RE-ENTRY DEVICES
- CLOSURE DEVICES
WHAT IS SET?

CMS – July 2018
CPT 93668

HOW SET WORKS

• Intermittent walking exercise with alternating periods of maximum claudication to periods of rest
• ACC/AHA recommend SET for initial tx of IC
• Usually 30-60 minute sessions
• Hospital Outpatient setting or Physician office
• Performed by qualified and trained personnel
• Typically approved for 36 sessions over 12 weeks
• CPT 93668, I70 claudication ICD codes
GOAL OF SET

• To improve one’s walking speed, walking distance, and duration of walking with fewer symptoms of claudication
CLAUDICATION PAIN SCALE

0 NO PAIN
1 MILD pain or discomfort
2 MILD pain or discomfort
3 MODERATE pain or discomfort
4 MODERATE pain or discomfort
5 SEVERE pain or discomfort

Step before you have severe pain.

So what is Collateral Damage?

• Any degree of acute or chronic pain and/or tissue loss related to PAD.

What are Collaterals?
Angiogenesis

How does SET affect Collateral Damage?

• Increases the number and quality of collaterals by enhancing angiogenesis in the affected leg

SUMMARY

• We are in the middle of the PAD belt
• PAD is a significant health issue with significant morbidities
• Risk reduction is key in helping to reverse the signs and symptoms of PAD

SUMMARY

• Supervised Exercise Therapy will help to reduce the collateral damage of PAD by decreasing pain associated with claudication, enhance activity & lifestyle, helping to heal extremity wounds, and helping to reduce the possibility of amputation, all because of the enhanced stimulation of angiogenesis and creation of new collateral vessels.

SUMMARY

• COLLATERAL DAMAGE CAN BE AVOIDED WITH NEW COLLATERALS

QUESTIONS?