Latest Advances in Venous Care

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18th Annual Conference
May 31 - June 02
THE PERIPHERAL EVENT OF THE YEAR
Disclosures

None
Disorders of the Heart

- Dx & prevention
- CAD
- Myocardial disease
- Valvular disease
- Conduction abnormalities
- PAD
- Venous vascular disorders
Venous Insufficiency

Inability of the veins in the legs to return blood to the heart
Manifestations of Venous Insufficiency

- Varicose Veins
- Swollen Legs
- Skin Changes
- Skin Ulcers

Photos courtesy of Rajabrata Sarkar, MD, PhD.
How does the venous system work?
Venous function

Blood return to the heart via the venous pump:

• Muscle contraction
• Inspiration
Pathophysiology of Venous Insufficiency
How important is this disorder?

• Most prevalent
• Most ignored
• Most misdiagnosed
2015 U.S. PREVALENCE OF SELECTED CHRONIC DISEASES (Millions)

Nearly 40 Million people suffer from venous reflux disease and varicose veins

Less than 2 million seek treatment!
Myths

• “This is only a cosmetic disorder”
• “Nobody knows much about this”
• “This is not covered by insurance”
• “The only way to fix it is painful, extensive surgery”
• “My doctor says not to worry about it”
Risk Factors of Venous Insufficiency

- Heredity
- Occupation
- Pregnancy
- Obesity
- Gender
- Age
- Prior Injury or Surgery
- Sedentary Lifestyle
Symptoms and Findings of Venous Insufficiency

- Edema
- Spider Veins
- Varicose Veins
- Skin Changes
- Ulcers
- Pain often described as an ache, fatigue, or heaviness
- Nocturnal Cramps
- Restless Leg Sx
- Beware of the Pt w/ “Neuropathy” w/ these Sx
- No Diabetes or Other Risk Factors for Neuropathy
Physical Exam

• Edema
• Varicose Veins
• Spider Veins
• Skin Discoloration
• Ulcers
True Vascular Disorder

- Pain
- Swelling
- Itching
- Leg cramps
- Heaviness
- Throbbing
- Restless legs
- Ulcerations
- COSTS
Diagnosis

• **Antegrade flow**: Blood flow toward the heart
• **Patency**: Vessel is clear of obstruction and flow is present
• **Compression**: Vein wall collapses when pressure applied over vein with transducer
• **Occlusion**: Complete closure of a vessel with no flow present

• **RETROGRADE FLOW**: Reflux in vessel/vein
• Detoxified by Liver
• Cleared or filtered by kidneys
• Oxygenated and CO$_2$ removed by lungs
• Not cleared of dying red/white blood cells by spleen
Distal Augmentation

Normal valve closure after augmentation

Abnormal valve closure after augmentation
Treatment Options

• Conservative/Medical Treatment
• Definitive
• Adjunctive
Surgical Intervention

- Archaic
- Barbaric
- Obsolete
Endovascular Techniques

• Requires extensive knowledge of anatomy and physiology as well as venous pathology
• Office Based
• Local Anesthetic
• Chemical or heat ablation of culprit vessel
• NO Down Time
• Covered by most insurance plans
• Detoxified by Liver
• Cleared or filtered by kidneys
• Oxygenated and CO₂ removed by lungs
• Not cleared of dying red/white blood cells by spleen
Endovascular Techniques

• Glue
• Thermo Ablation:
  • Radiofrequency
  • Laser
Radiofrequency Ablation

Disposable catheter inserted into vein

Vein heats and collapses

Catheter withdrawn, closing vein
Adjunctive Therapies

- Microphlebectomy
- Sclerotherapy
- Clinical and cosmetic applications
Why a Venous Practice?

- Busy
- Financially lucrative
- Lifestyle

- Professional satisfaction
- Sense of purpose
- Appreciate & happy patient population
Believe

That your success is based on a true patient need and calling to evaluate and treat patients with this disorder.

• Are there enough patients out there?
• What is the competition for treating these patients?
More than cosmetic

- Edema ➔ diuretics
- Lower extremity leg pruritus ➔ all types of creams incl. steroids
- “Neuropathy” ➔ gabapentin, narcotics, unnecessary testing
- Nocturnal leg cramps ➔ potassium, magnesium, benzodiazepines, illegal quinine
- Restless legs ➔ numerous ineffective medications incl. ropinirole
- Ulcers ➔ antibiotics, wound centers, hyperbarics etc.
Thank you
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