

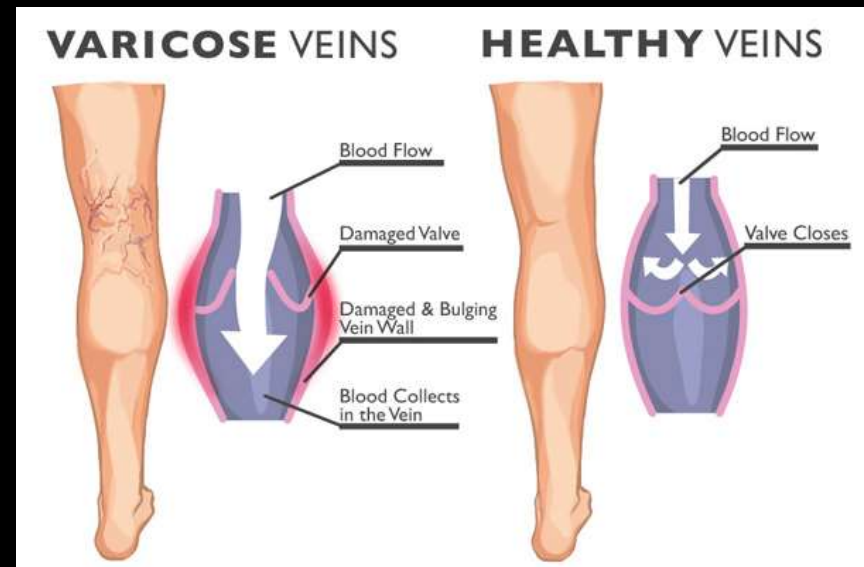
Varicose Veins

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Varicose Veins

- Varicose veins are usually
 - a. Dilated
 - b. Tortuous
 - c. Subcutaneous veins
 - d. $\geq 3\text{mm}$ in diameter measured in upright position with demonstrable reflux



Epidemiology

- Prevalence in females is 25-30% & 15% in males
- More in women than male
- Prevalence increase with age
- Ethnicity
- Body mass & height
- Pregnancy
- Family history
- Occupation
- smokers

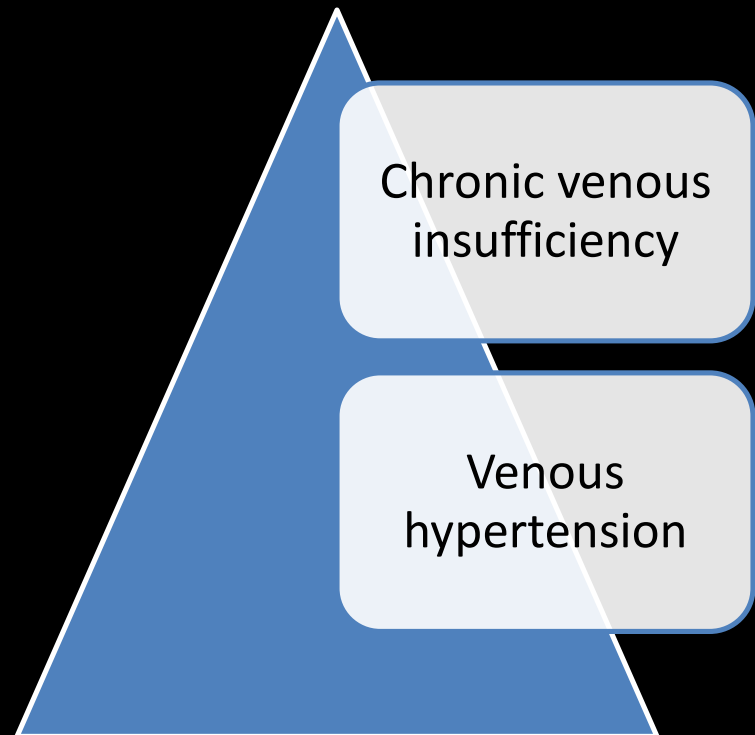
Prevalence & Incidence?

- **Prevalence** is a statistical concept referring to the number of cases of a disease that are present in a particular population at a given time.
- **Incidence** refers to the number of new cases that develop in a given period of time.

Problem

- Significant clinical problem & not just cosmetic issue because of unsightly nature

Problem





Classification

Etiologic

- Ec: Congenital
- Ep: Primary
- Es: Seceondary
- En: No venous cause

Anatomical

- As: Superficial veins
- Ap: Perforators veins
- Ad: Deep veins
- An: No venous location identified

Etiological Classification

- Primary varicose veins -- incompetent venous valves result venous hypertension
- Mostly at SF junction
- Secondary varicose veins—DVT or its sequale
- Long term sequale from it is called **Post thrombotic syndrome**


Etiological Classification

- Pregnancy & progesterone induced
- Wall & valve weakness by increase in blood volume
- Enlarged uterus compresses venous return
- Any venous malformation
- Trauma

Pathophysiological Classification

- Pr: Reflux
- Po: Obstruction
- Pr,o: Reflux & obstruction
- Pn: No venous pathophysiology identifiable

Clinical Classification

CEAP Clinical Score	 Description	Cosmetic or Medical Varicose Veins (extrapolated from NICE CG 168)
C0	No visible or palpable varicose veins	No varicose veins
C1	<u>Telangiectasia</u> (Thread veins / Spider veins / Broken veins)	Cosmetic
C2	C2A Varicose veins without any symptoms (Asymptomatic)	Cosmetic
	C2S Varicose veins with symptoms	Medical
C3	Swollen ankle (oedema) due to varicose veins	Medical
C4	Skin damage due to varicose veins	Medical
C5	Healed venous leg ulcer	Medical
C6	Venous leg ulcer	Medical

Clinical Features

- Aching or heaviness
- Ankle swelling
- Itching
- Bleeding
- Superficial thrombophlebitis
- Eczema
- Extravasated RBC
- Itching
- Scratch
- Eczema

Clinical Features

- Telangectasia (spider veins, thread veins & hypen web) are confluence of dilated intradermal venules <1mm



Clinical Features

- Reticular veins are dilated sub dermal veins 1-3 mm in diameter
-



Clinical Features

- Saphena varix means large varicosity in groin
- Gentle palpation on coughing elicits thrill
- Corona blanche(malleolar or ankle flare) fan shaped intradermal veins on medial or lateral aspect of ankle or foot
- Atrophic blanche is localised white atrophic skin frequently surrounded by capillaries, hyperpigmentation
- mostly around ankle



Clinical Features

- Pigmentation
- Brown discoloration of skin
- Haemosideration deposition
- Frequently affecting gaiter area
- May be associated with phlebitis & ulceration



Clinical Features

- Eczema
- Erythematous dermatitis
- Progress to blistering
- Weeping or scaling eruption
- Not to be confused with contact dermatitis

- Pitting edema



Clinical Features

- Lipodermatosclerosis –localised chronic inflammation & fibrosis of skin & subcutaneous tissues of leg



5/3/2020

- Ulceration



Investigations

- Duplex ultrasound scanning
- Before any intervention
- Accurate surgical approach
- Reduces recurrence
- Saphenous junction competence or not
- Perforators
- DVT
- Varicography ?
- **Tourniquet tests – abandoned**

As a result of
the veins
themselves

- Bleeding
- Thrombophlebitis

As a result of
venous
hypertension

- Oedema
- Venous Ulceration
- Pigmentation changes
- Lipodermatosclerosis
- Varicose Eczema

Management

- Asymptomatic pts reassurance only
- Vascular Surgeon
- C2 disease with bleeding, superficial thrombophlebitis
- Impairment of quality of life
- C3-C6 disease

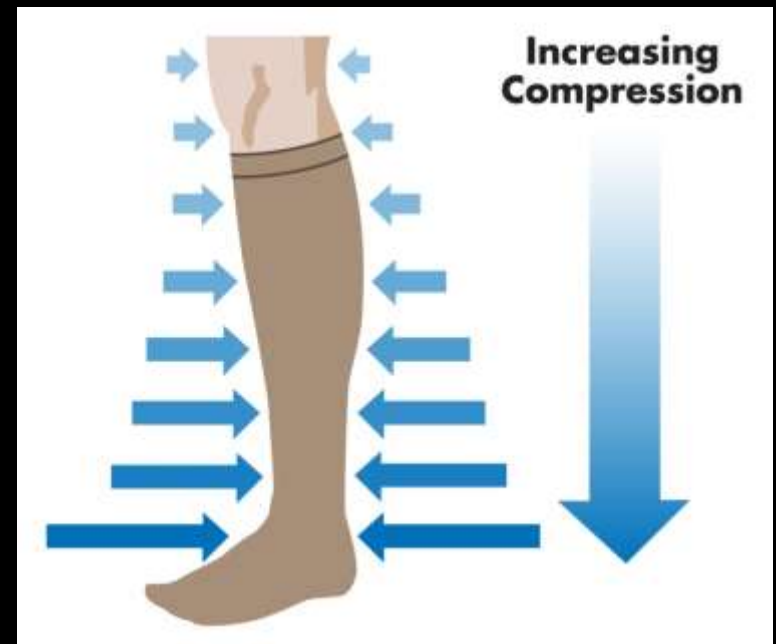
Welcome to the Division of
VASCULAR
Surgery



Management

Compression Hoisery

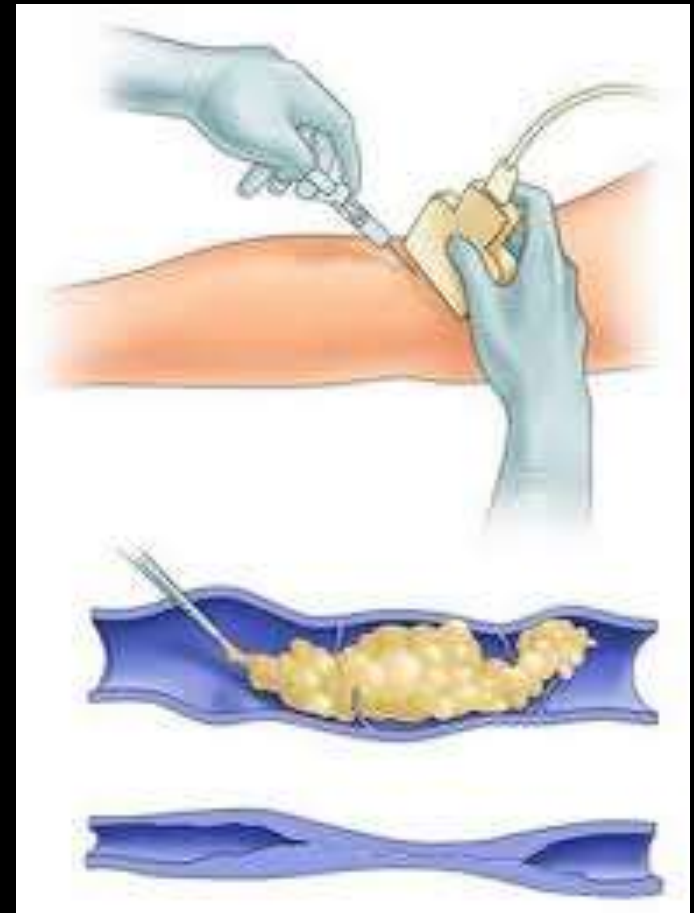
- Knee or thigh length
- No evidence of length of stocking
- Classified according to pressure
- No evidence of prevention of recurrence
- Poor compliance



Management

Ultrasound –guided foam sclerotherapy

- Injection directly into vein
- Sodium tetradecyl sulphate
- Leads to thrombosis, fibrosis & obliteration



Foam Sclerotherapy: Complications

- Phlebitis
- Skin staining
- Failure
- Residual lumps
- Matting
- Embolus (CVA)
- DVT
- Ulceration (rare)
- Anaphylaxis (very rare)

Management

Endovascular laser ablation

- Involves insertion of laser into lumen vein
- Vast majority of are suitable for it
- Complications are
 - Burn
 - AV fistula
 - Nerve injury
 - DVT
- Overall excellent safety profile



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Management

Radiofrequency ablation

- It is a minimal invasive endovascular therapy
- A bipolar catheter used for thermal energy to ablate the vein
- Complications are
 - Phlebitis
 - Skin burns

Management Surgery

- High ligation , stripping and simple avulsion
- Complications are
 - Infection
 - Nerve injury
 - Recurrence
 - Vascular injury

