H&E OF VARICOSE VEINS

PART I — HISTORY

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1 Identifying Data

- Age → middle-aged common
- Gender → more common in females
- Occupation → prolonged standing (teachers, surgeons, shopkeepers)
- Multiparity (in females)

Why important?

Chronic venous insufficiency risk factors.

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2 Chief Complaints

- Dilated veins in leg × duration

- Pain in leg × duration
- Swelling × duration
- Ulcer × duration

HISTORY OF PRESENT ILLNESS

A. Dilated Veins

When first noticed?

- Gradual onset typical.

Progression?

- Increasing in size over years.

B. Pain

Nature?

- Dull, aching
- Heaviness in leg
- Worse on standing
- Relieved by elevation

Why?

Venous hypertension increases on standing.

C. Swelling

- Worse in evening
- Improves overnight

Suggests venous insufficiency.

D. Skin Changes

Ask:

- Darkening of skin?
- Itching?

- Eczema?

Why?

Venous stasis dermatitis.

E. Ulcer

- Location? (Usually medial malleolus)
- Painful or painless?

Venous ulcers:

- Shallow
- Irregular margins
- Associated pigmentation

F. Bleeding from Veins?

Dilated veins may rupture.

G. History of DVT

Very important.

Why?
Secondary varicose veins due to deep vein obstruction.

H. Risk Factors

- Prolonged standing
- Obesity
- Pregnancy
- Chronic cough
- Constipation

PROVISIONAL DIAGNOSIS FROM HISTORY

Example: "Primary varicose veins involving great saphenous vein."

PART 2 — EXAMINATION

Examine patient standing first.

Expose from groin to ankle.

Compare both legs.

GENERAL PHYSICAL EXAMINATION

- Obesity
- Anemia (chronic ulcer)
- Signs of DVT

LOCAL EXAMINATION

1️⃣ INSPECTION (Standing Position)

Look carefully.

A. Dilated, Tortuous Veins

Common along:

- Medial aspect of leg → Great saphenous vein
- Posterior calf → Short saphenous vein

B. Distribution

Trace course of vein.

C. Skin Changes

Look for:

- Hyperpigmentation
- Eczema
- Lipodermatosclerosis
- Atrophie blanche
- Ulcer (medial malleolus)

D. Edema

Ankle swelling.

E. Scars

Previous surgery?

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2 PALPATION

A. Temperature

Warm if thrombophlebitis.

B. Tenderness

Painful cord-like vein → thrombophlebitis.

C. Compressibility

Varicose veins are compressible.

D. Cough Impulse at Saphenofemoral Junction

Place finger 3–4 cm below and lateral to pubic tubercle.

Ask patient to cough.

Impulse felt → SFJ incompetence.

Very important.

E. Pitting Edema

Press over ankle.

F. Peripheral Pulses

Check dorsalis pedis & posterior tibial.

Important to rule out arterial disease.

3️⃣ PERCUSSION TEST (Tap Test)

Tap over lower vein while feeling upper part.

If impulse transmitted upward → incompetent valves.

4️⃣ AUSCULTATION

Rarely needed.

Bruit may indicate AV malformation.

SPECIAL TESTS ⭐

1️⃣ Trendelenburg Test

Purpose: Identify site of valve incompetence.

How to do:

1. Patient supine.
2. Elevate leg to empty veins.
3. Apply tourniquet at upper thigh.
4. Ask patient to stand.
5. Observe filling.
6. Release tourniquet.

Interpretation:

- Rapid filling before release → incompetent perforators.
- Sudden filling after release → SFJ incompetence.

Examiner favorite.

2️⃣ Perthes Test

Purpose: Assess deep vein patency.

How to do:

1. Apply tourniquet at thigh.
2. Ask patient to walk.

If veins collapse → deep veins patent.
If veins become more distended and painful → deep vein obstruction.

Very important to rule out DVT.

3️⃣ Multiple Tourniquet Test

Used to locate incompetent perforators.

COMPLICATIONS

Examiners always ask.

- Edema

- Eczema
- Lipodermatosclerosis
- Venous ulcer
- Bleeding
- Superficial thrombophlebitis

DIFFERENTIAL DIAGNOSIS

- DVT
- Lymphedema
- AV malformation

🔵 CEAP Classification of Varicose Veins

CEAP =

C – Clinical

E – Etiological

A – Anatomical

P – Pathophysiological

❑ C — Clinical Classification (Most Important for Ward Exam)

Based on visible and palpable signs.

Class	Clinical Feature
C0	No visible signs
C1	Telangiectasia / Spider veins
C2	Varicose veins
C3	Edema
C4	Skin changes C4a (Pigmentation, Eczema) and C4b (Lipodermatosclerosis, Atrophie blanche)

C5	Healed venous ulcer
C6	Active venous ulcer

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2 E — Etiology

Code	Meaning
Ec	Congenital
Ep	Primary
Es	Secondary (Post DVT)
En	No cause identified

Most common: Ep (Primary).

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3 A — Anatomical

Code	Meaning
As	Superficial veins
Ad	Deep veins
Ap	Perforator veins
An	No venous location identified

Example:

Primary varicose veins usually → As.

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4 P — Pathophysiology

Code	Meaning
Pr	Reflux

Po	Obstruction
Pro	Reflux + Obstruction
Pn	No abnormality

Most varicose veins → Pr (reflux).

🔴 NAMED PERFORATORS (Very Important Viva)

Perforators connect:

Superficial veins → Deep veins.

They normally allow one-way flow inward.

If incompetent → varicose veins.

Perforator	Location

Dodd's	Mid thigh
Hunterian	Upper thigh
Boyd's	Below knee
Cockett's (3 in number)	Lower medial leg
Sherman's	Lower medial calf

🎯 Why are perforators important?

Because incompetence leads to:

- Venous hypertension
- Skin changes
- Venous ulcer

VIVA QUESTIONS

- Anatomy of great and small saphenous vein?
- What is venous ulcer?
- Difference between venous and arterial ulcer?
- What is lipodermatosclerosis?
- Causes of secondary varicose veins?
- What is CEAP classification?

-> The End <-