

Primary superficial venous insufficiency

varicose veins

DR NAZARI

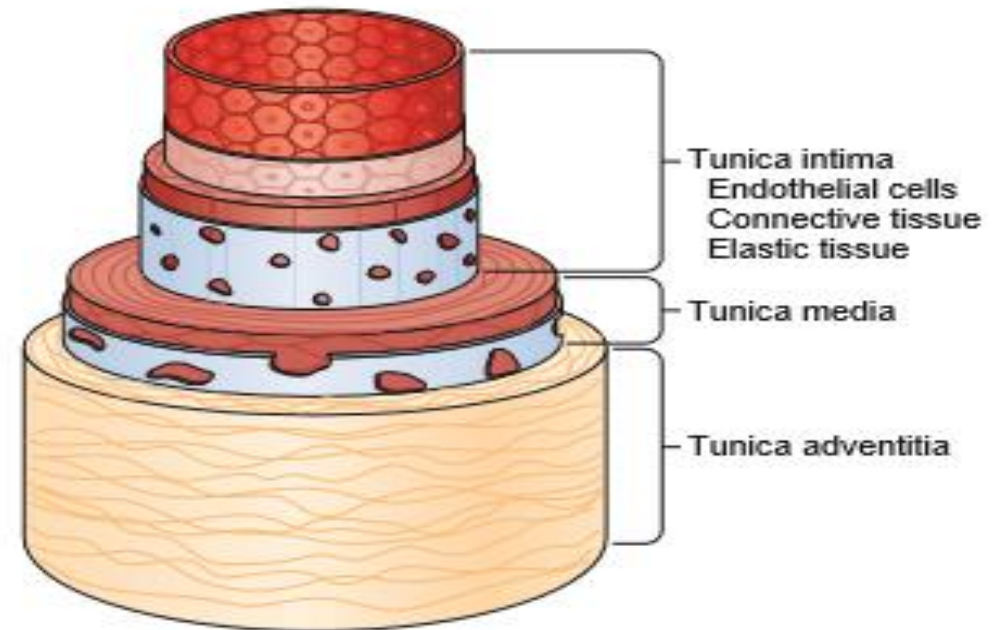
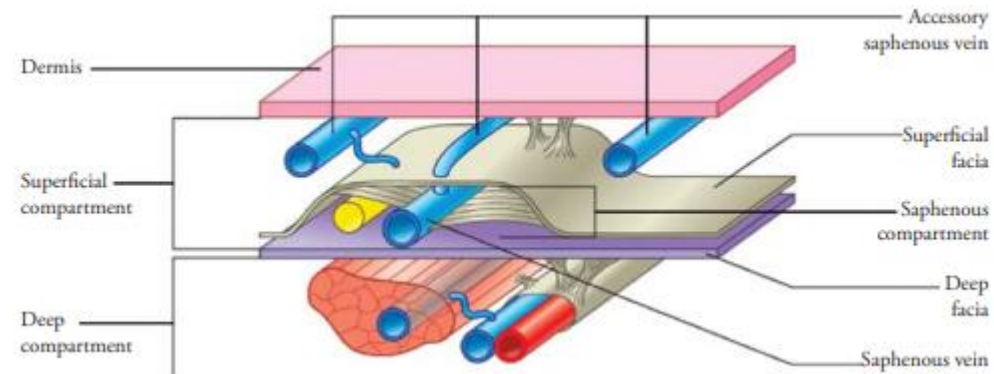
Assistant professor of surgery

Vascular surgeon and peripheral endovascular

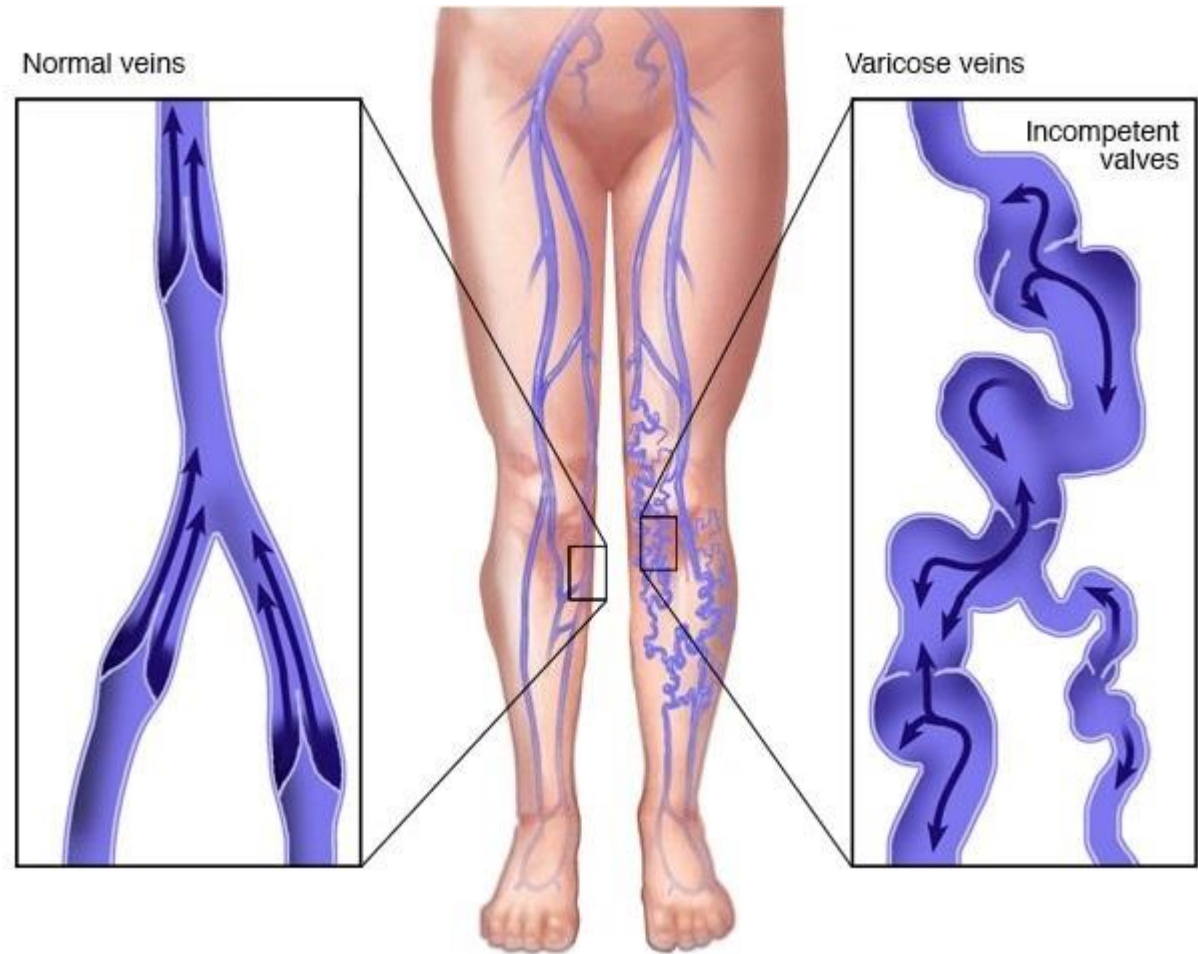
ANATOMY

TABLE 3.1 Vessel Wall Characteristics of Circulatory Systems

	Arterial Wall	Venous Wall	Lymphatic Wall
Collagen content	Moderate	High	Mixed
Elastic fiber content	High	Moderate	Mixed
Central pressure	High	Very low	Low
Shear stress	High	Low	Low
Stretch force	High	Low	Low
Pulsatility	High	Low	Low
Compliance	Moderate	High	High
Oxygen tension	High	Low	Low
Intrinsic propulsion	None	None	Predominant
Valves	None	Some	Many



علت نارسایی



RISK FACTORS

Certain

Heredity

Female Gender

Pregnancy

Aging

Conjectural

Diet

Abdominal Straining

Tight Clothing

Leg Crossing



HEREDITY

vein wall weakness
increased primary valvular
dysfunction or agenesis
and other genetic factors



PREGNANCY

hormonal factors are
primarily responsible for
venous dilation



AGING



THEORETICAL RISK FACTORS

- Western dietary and defecation habits.
- Defecatory straining induced by Western-style toilet seats.
- prostatic hypertrophy, inguinal hernia.
- wearing girdles or tight-fitting clothing.
- Leg crossing and sitting on chairs.
- Obesity.
- decreased exercise and associated medical problems specific to obesity such as hypertension, diabetes, hypercholesterolemia, and sensory impairment.
- occupations that require standing for prolonged periods

CEAP classification system

CEAP classification system

CLINICAL CLASSIFICATION

- C0: No visible or palpable signs of venous disease
- C1: Telangiectasias or reticular veins
- C2: Varicose veins
- C3: Edema
- C4a: Pigmentation and/or eczema
- C4b: Lipodermatosclerosis and/or atrophic blanche
- C5: Healed venous ulcer
- C6: Active venous ulcer
- S: Symptoms including ache, pain, tightness, skin irritation, heaviness, muscle cramps, as well as other complaints attributable to venous dysfunction
- A: Asymptomatic



CEAP classification system

ETIOLOGIC CLASSIFICATION

Ec: Congenital
Ep: Primary
Es: Secondary (postthrombotic)
En: No venous etiology identified

ANATOMIC CLASSIFICATION

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

PATHOPHYSIOLOGIC CLASSIFICATION

Basic CEAP:
Pr: Reflux
Po: Obstruction
Pr,o: Reflux and obstruction
Pn: No venous pathophysiology identifiable



SYMPTOMS

- Aching Heaviness (on standing, prolonged sitting)
- Aching Pain (on standing, prolonged sitting)
- Burning (venous neuropathy)
- Itching (cutaneous inflammation)
- Nocturnal Cramps (recumbent edema reduction)

the presence and severity of symptoms do not correlate with the size or severity of the varicose veins present.



علائم واریس



the presence and severity of symptoms do not correlate with the size or severity of the varicose veins present.

- احساس سنگینی در پاها، به خصوص در شب
- تورم، سوزش، و گرفتگی در ساق پاها
- افزایش درد بعد از نشستن یا ایستادن برای مدت طولانی
- خارش اطراف رگها
- تغییر رنگ پوست در اطراف واریس
- پاهای دردناک
- خستگی
- خونریزی طولانی‌تر یا بیش از حد به دلیل صدمه جزئی در ناحیه آسیب‌دیده
- تورم مچ پا
- تلانژکتازی در پای آسیب‌دیده (رگ‌های عنکبوتی)
- تغییر رنگ پوست در نزدیکی واریس، معمولاً به رنگ قهوه‌ای یا آبی
- آگزمای وریدی باعث ایجاد قرمزی و خشکی در ناحیه آسیب‌دیده پوست می‌شود
- گرفتگی پا در هنگام ایستادن
- تعدادی از افراد مبتلا به واریس نیز دارای سندرم پاهای بی‌قرار هستند

PHYSICAL EXAMINATION

Spider Veins (Telangiectasia)



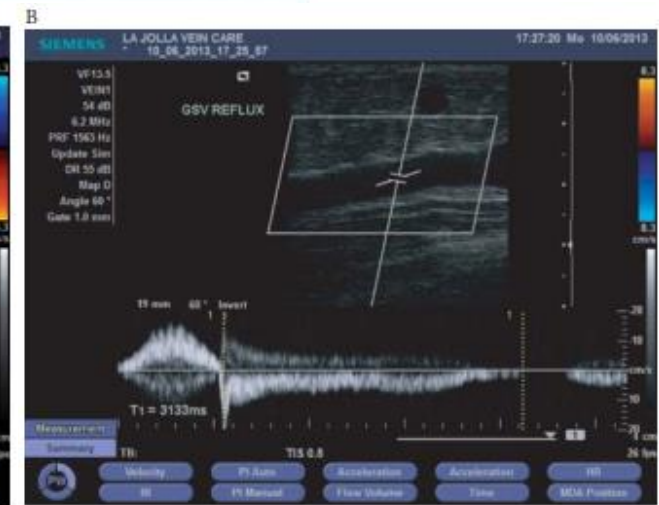
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CLINICAL TEST

- Trendelenburg Test
- Cough Test
- Schwartz Test
- Perthes' Test



سونوگرافی



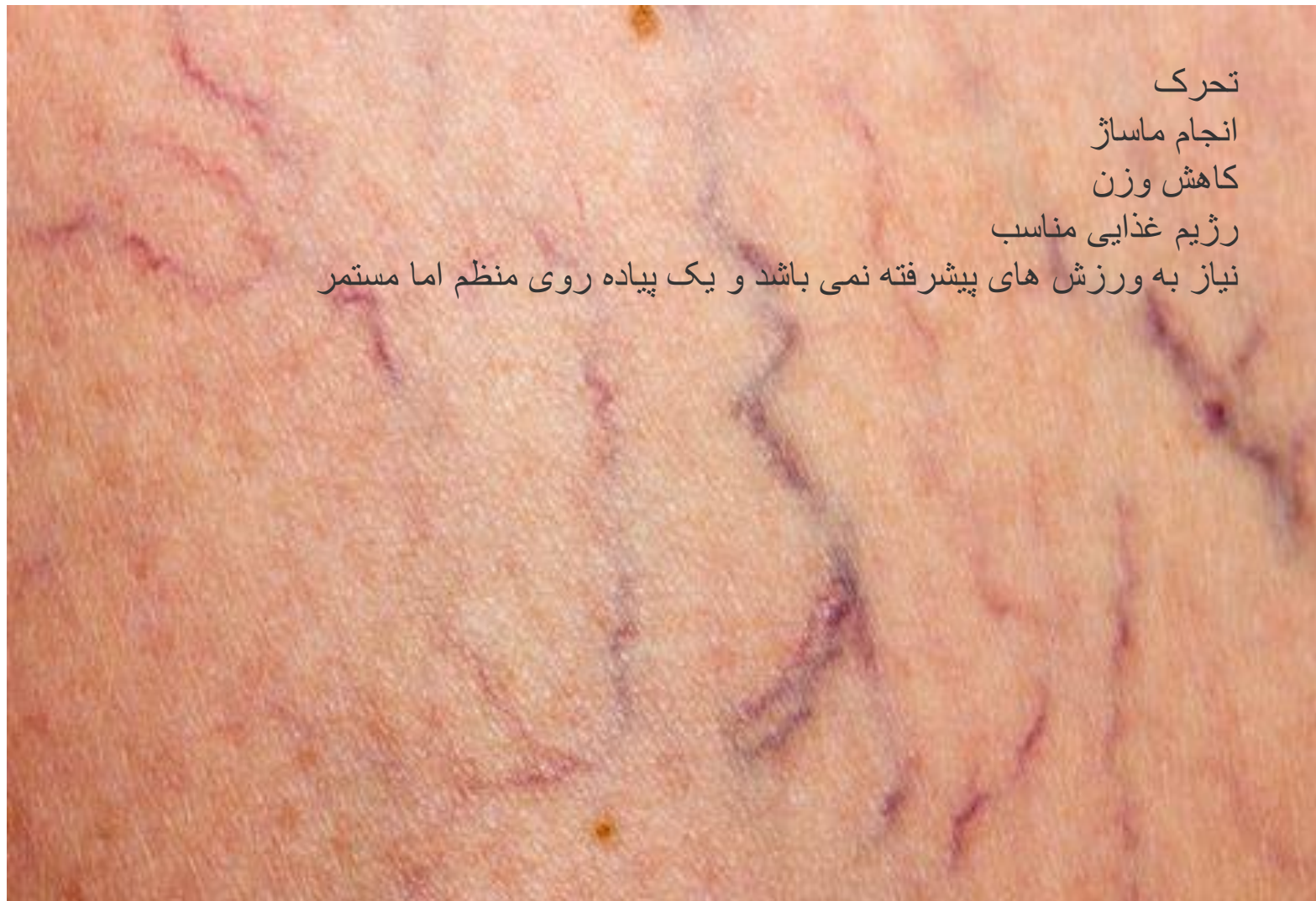
اندیکاسیون های سونوگرافی

- 1. CEAP clinical stages 2–6**
- 2. patients with venous symptoms (CEAP clinical stage 0)**
- 3. venous malformations**
- 4. post-treatment surveillance.**
- 5. select patients with telangiectactic or reticular veins (CEAP clinical stage 1)**

Patients who have extensive reticular veins and/or telangiectasias, especially located in the inner thighs, medial or lateral malleolus or associated with corona phlebectasia

پیشگیری از ابتلا به بیماری واریس

تحرک
انجام ماساژ
کاهش وزن
رژیم غذایی مناسب
نیاز به ورزش های پیشرفته نمی باشد و یک پیاده روی منظم اما مستمر



COMPRESSION CLASSES OF COMPRESSION STOCKINGS USED IN SEVERAL COUNTRIES



COMPRESSION CLASS	EU (CEN)64	USA	UK (BS 6612)65	FRANCE	GERMANY66
A	10-14 (light)	15-20 (moderate)	14-17 (light)	10-15	18-21 (light)
I	15-21 (mild)	20-30 (firm)	18-24 (medium)	15-20	23-32 (medium)
II	23-32 (moderate)	30-40 (extra firm)	25-35 (strong)	20-36	34-46 (strong)
III	34-46 (strong)	40+		>36	>49 (very strong)
IV	>49 (very strong)				

The values indicate the compression exerted by the hosiery at a hypothetical cylindrical ankle

EFFECTS OF COMPRESSION THERAPY



PARAMETERS	EFFECT
Tissue pressure	Increase
Edema	Decrease
Venous volume	Decrease
Venous velocity	Increase
Blood shift into central compartments	Increase
Venous refluxes	Decrease
Venous pump	Improvement
Arterial flow	Increase (intermittent compression)
Microcirculation	Improvement
Lymph drainage	Improvement

اهداف درمان

زیبایی
تسکین علائم
پیشگیری از عوارض
وریدهای واریسی



اندیکاسیونهای مداخله درمانی

General appearance

Aching pain

Leg heaviness

Easy leg fatigue

Superficial thrombophlebitis

External bleeding

Ankle hyperpigmentation¹

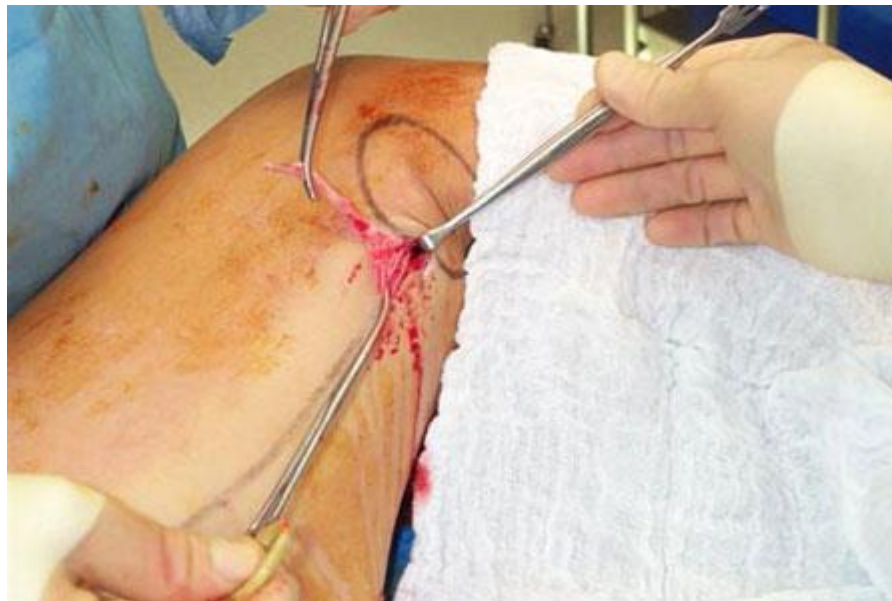
Lipodermatosclerosis

Atrophie blanche

Venous ulcer

روش های درمان واریس

- CHEMICAL VENOUS CLOSURE
- NONSURGICAL TREATMENT
- SURGICAL TREATMENT



اسکلروتراپی

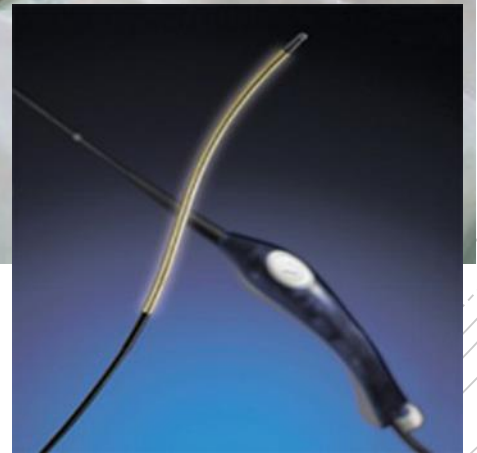
CHEMICAL VENOUS CLOSURE

- induce endothelial damage and subsequent thrombus formation by the injection of a chemical into the vein lumen.
- The result of this process is occlusion and fibrosis of the diseased vein.

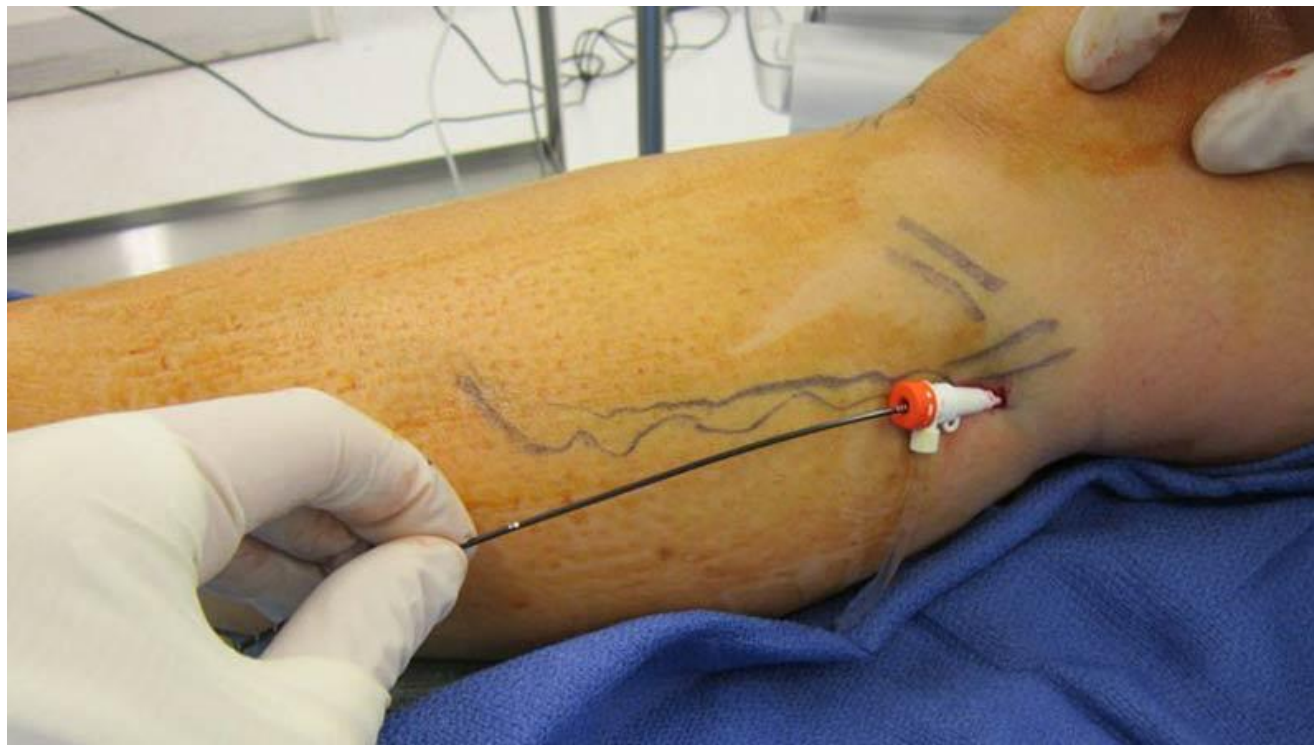


RFA

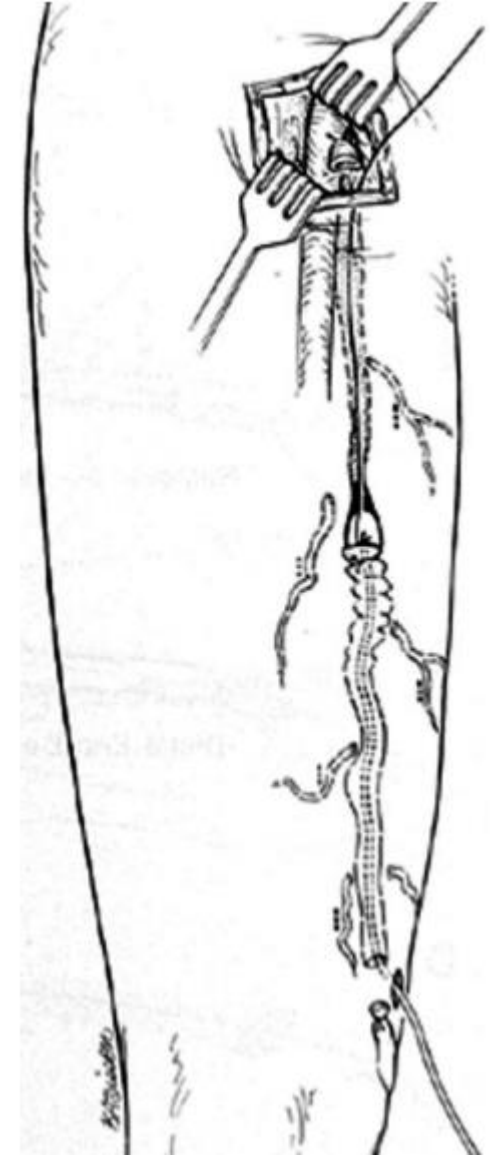
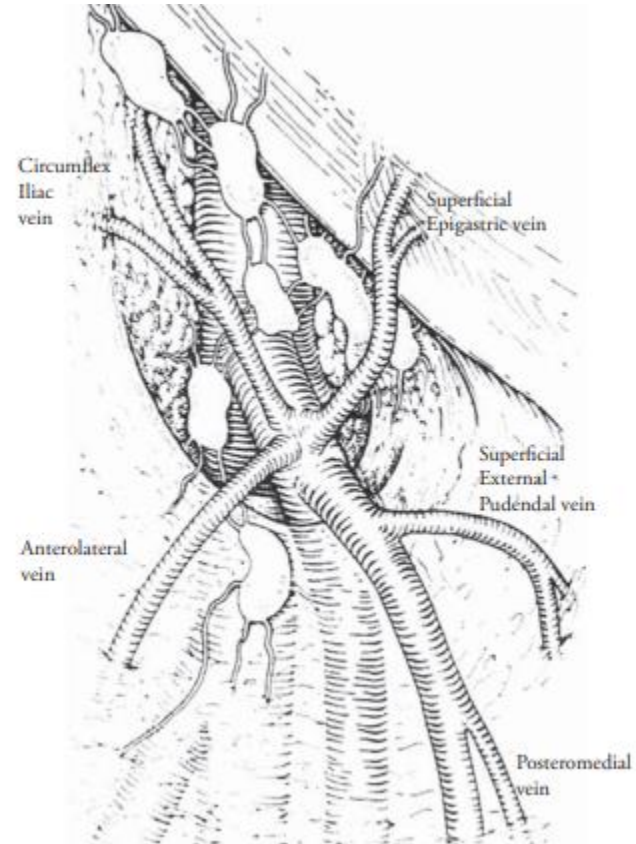
endovenous ablation



RFA



SURGICAL TREATMENT



با تشكر

