

ALT EXTREMİTE VENÖZ YETMEZLİĞİ VE ENDOVENÖZ LAZER TEDAVİSİ

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Venöz yetmezliğin en belirgin bulgusu

VARİSLER

Spider venler



Retiküler venler



Variköz venler



Venöz yetmezlik: Diğer bulgular

Ağrı:

Ödem:

Yanma:

Kaşıntı:

Kramp:

Sıcak mevsimlerde
ve ayakta kalma ile
artarlar



Venöz ülser



Staz dermatiti



Lipodermatosklerozis



Atrophie blanche



Corona flebectica



An unexpectedly high rate of pulmonary embolism in patients with superficial thrombophlebitis of the thigh.

[Verlato F](#), [Zucchetto P](#), [Prandoni P](#), [Camporese G](#), [Marzola MC](#), [Salmistraro G](#), [Bui F](#), [Martini R](#), [Rosso F](#), [Andreozzi GM](#).


Unit Care of Angiology, University Hospital of Padua, Padua, Italy.

PURPOSE: The rate of objectively proven pulmonary embolism in patients with thrombophlebitis of the greater saphenous vein was studied. **METHODS:** Consecutive ambulant patients with thrombophlebitis of the greater saphenous vein, involving the above-knee segment, underwent a complete venous echo color Doppler examination of the lower limbs, perfusion lung scanning, and chest radiography. A high probability of pulmonary embolism was defined as the presence of two or more large segmental defects, one large and two or more moderate perfusion defects, or four or more moderate perfusion defects, with no corresponding abnormality found by means of chest radiography. **RESULTS:** Of the 21 patients included in the study, findings compatible with a high probability of pulmonary embolism were detected in seven patients (33.3%; 95% CI, 14.6 to 57.0), although clinical symptoms of pulmonary embolism were present only in one patient. No association was found between the presence of thrombosis at the saphenofemoral junction and the risk for pulmonary embolism. **CONCLUSION:** The rate of pulmonary embolism in patients with thrombophlebitis of the greater saphenous vein is unexpectedly high. This risk is similarly high in patients with thrombosis at the saphenofemoral junction and in patients without thrombosis at the saphenofemoral junction. Our results are consistent with those of other recent investigations and suggest that superficial thrombophlebitis of the thigh is not as benign a disease entity as previously described.


PMID: 10587397 [PubMed - indexed for MEDLINE]

- **YTF: %25 DVT, %10 PE**
- **Endovask Tx zorlaşır**


1: [Racette S, Sauvageau A.](#)

-  **Unusual sudden death: two case reports of hemorrhage by rupture of varicose veins.**
Am J Forensic Med Pathol. 2005 Sep;26(3):294-6.
PMID: 16121090 [PubMed - indexed for MEDLINE]


2: [Morrow PL, Hardin NJ, Karn CM, Beloin R, McDowell RW.](#)

-  **Fatal hemorrhage caused by varicose veins.**
Am J Forensic Med Pathol. 1994 Jun;15(2):100-4. Review.
PMID: 8074099 [PubMed - indexed for MEDLINE]


3: [du Toit DF, Knott-Craig C, Laker L.](#)

-  **Bleeding from varicose vein--still potentially fatal. A case report.**
S Afr Med J. 1985 Feb 23;67(8):303.
PMID: 3983781 [PubMed - indexed for MEDLINE]

4: [Papp Z, Elek L.](#)

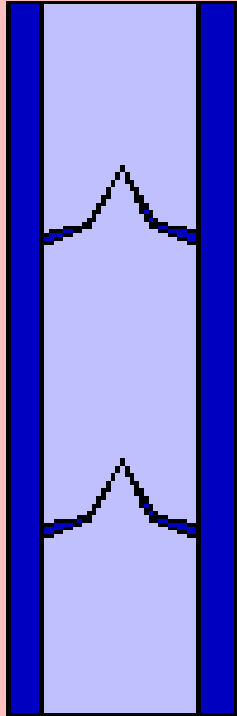
-  **[Fatal hemorrhage from a leg ulcer caused by varicose veins]**
Morphol Igazsagugyi Orv Sz. 1983 Jan;23(1):61-2. Hungarian. No abstract available.
PMID: 6843567 [PubMed - indexed for MEDLINE]

5: [Evans GA, Evans DM, Seal RM, Craven JL.](#)

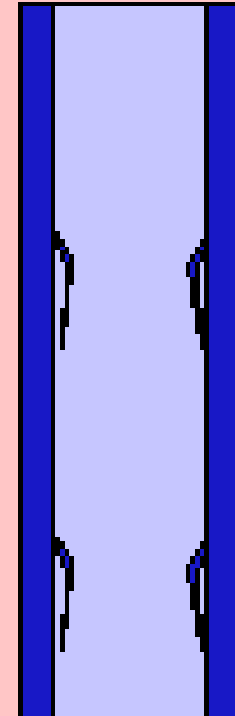
-  **Spontaneous fatal haemorrhage caused by varicose veins.**
Lancet. 1973 Dec 15;2(7842):1359-61. No abstract available.
PMID: 4128056 [PubMed - indexed for MEDLINE]

Patofizyoloji

- Kasların kasılmasıyla gönderilen kan, hasarlı kapaklardan geri akar, “Venöz hipertansiyon” oluşur
- Cilt altındaki destek dokusu zayıf yan dallarda variköz dilat. VSM ve VSP fibröz kılıf nedeniyle daha az genişler



Normal venler



Venöz yetmezlik

Tanı: Renkli Doppler USG



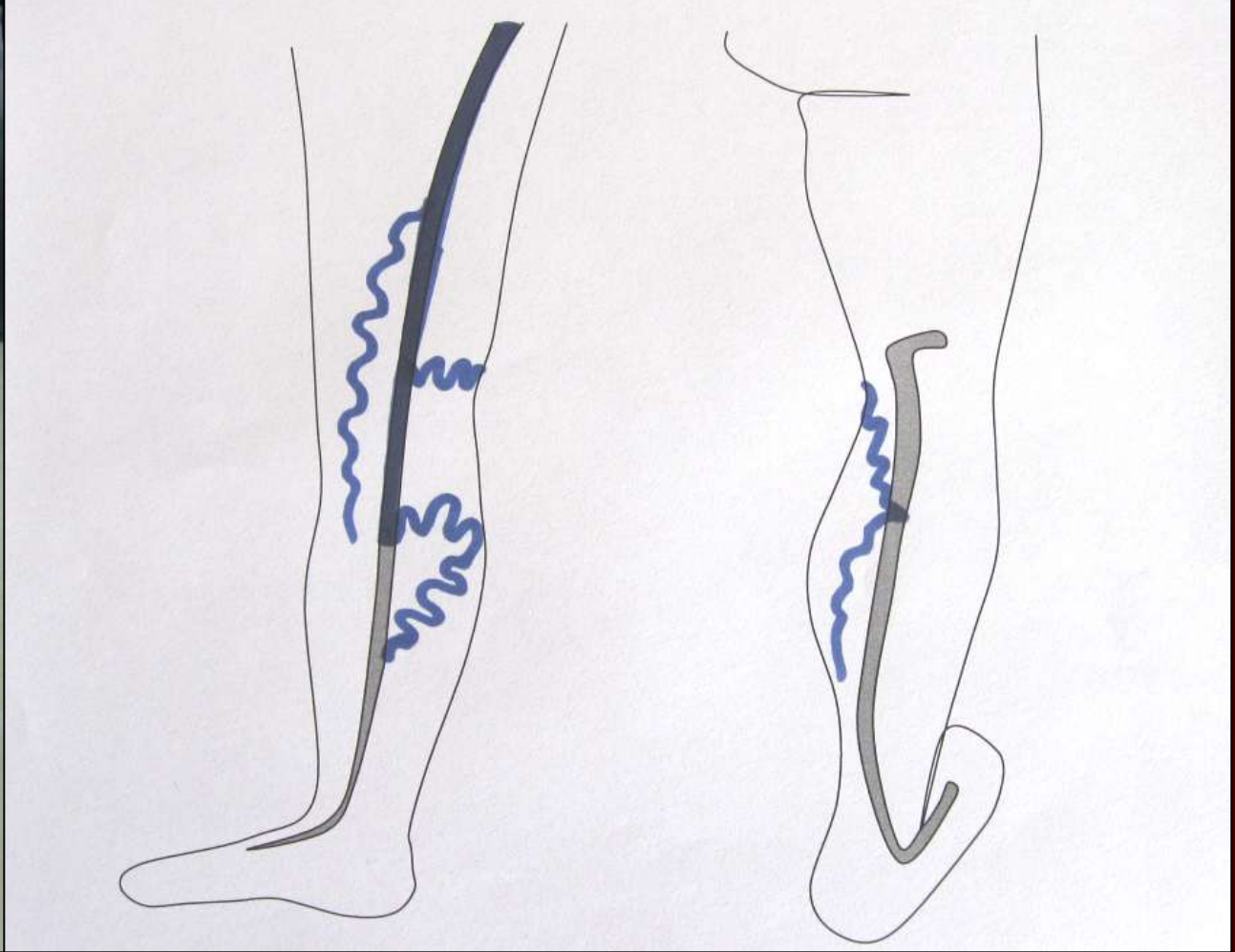
Renkli Doppler US, Amaç

1. Yüzeyel venöz sistemde reflü var mı? Varsa kaynağı, kaynakları ne?
VSM, VSP, perforan, pelvik ?
2. Variköz venlerin lokalizasyonu, çapı
Skleroterapi, flebektomi ?
3. Derin venöz sistemde reflü var mı?
Posttrombotik? YVY e bağlı
4. Derin venlerde obstrüks. var mı?
5. Şiddetli arteryel yetmezlik var mı?

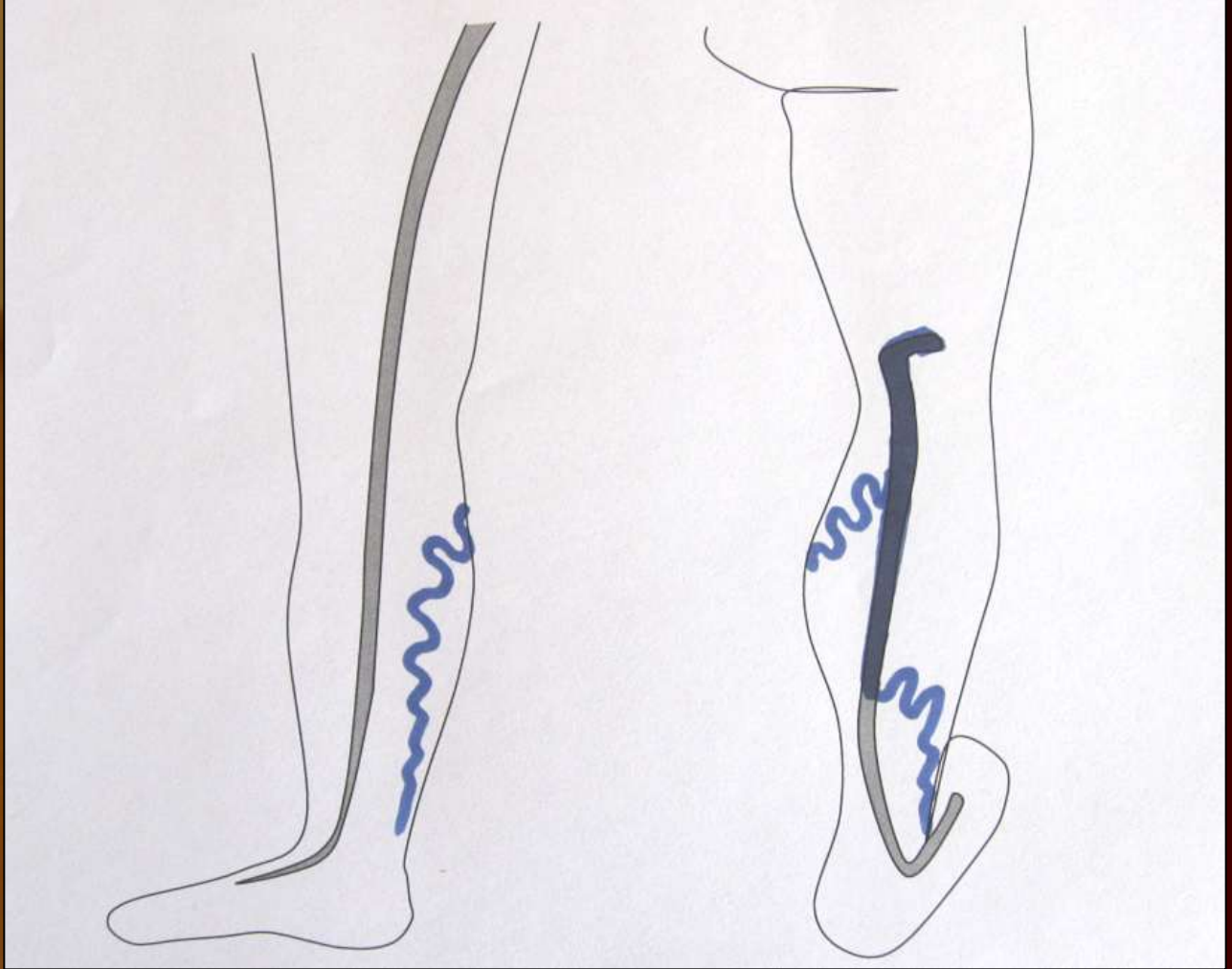
Renkli Doppler USG

- **Ayakta yapılmalı !**
- **VSM ve VSP dışı reflü ?**
- **Derin ven reflü yorumu**
 - **YVY e sekonder ?**
 - **DVT a sekonder ?**

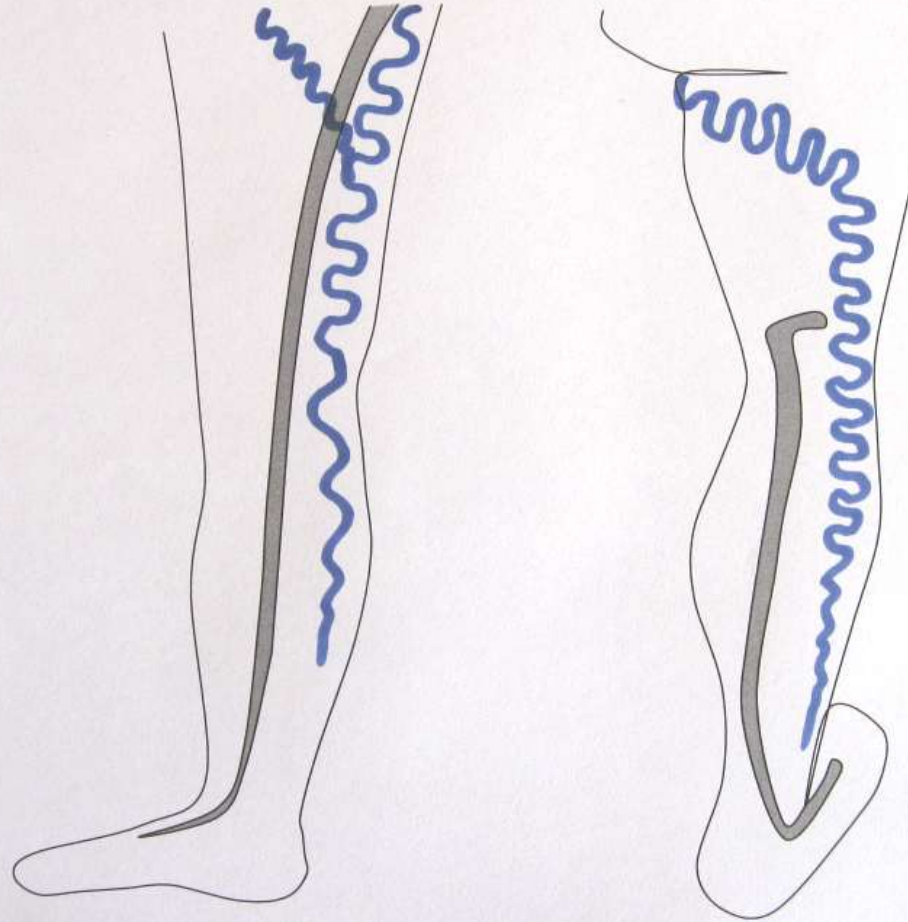
Klasik VSM reflüsü (SFB)



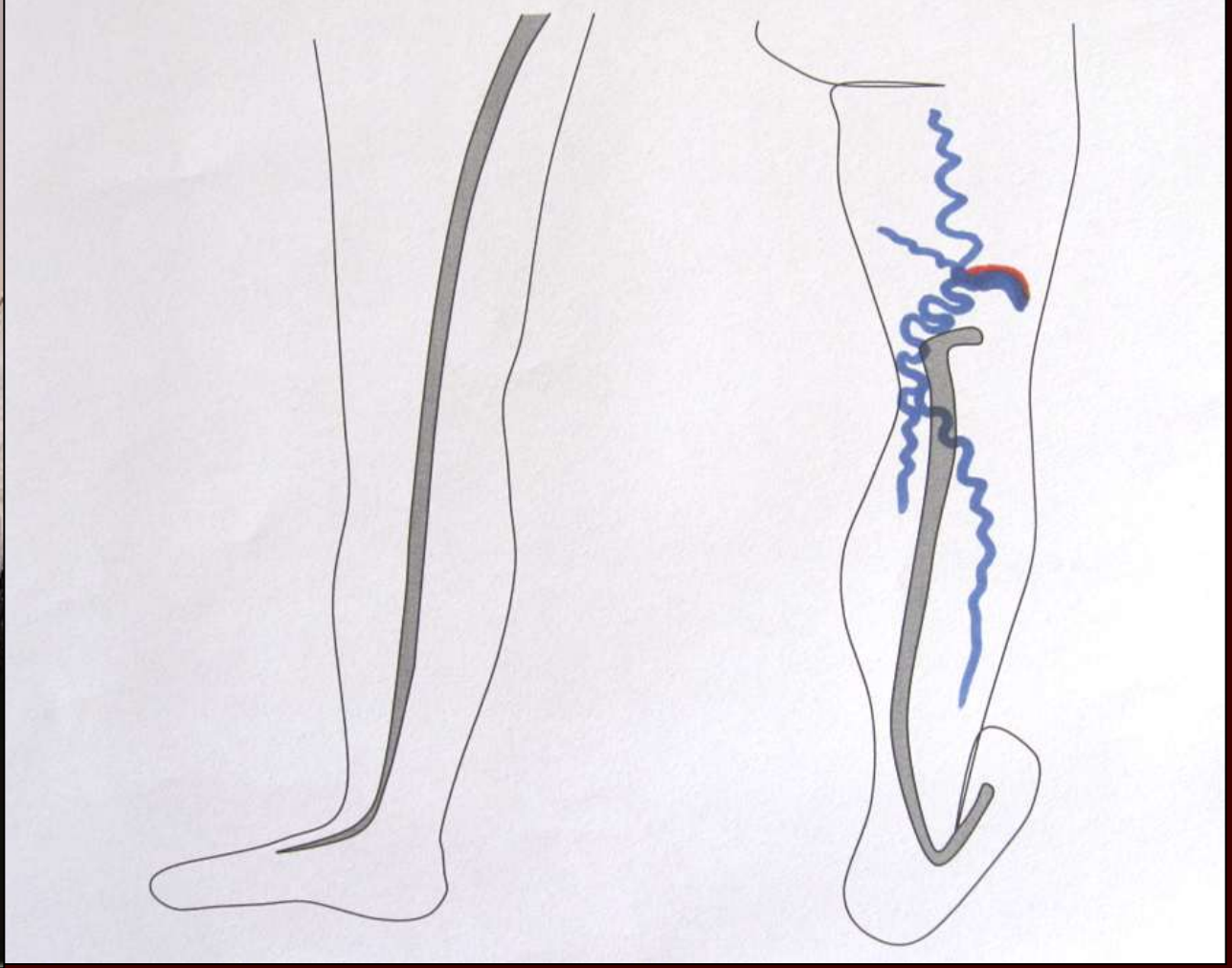
Klasik VSP reflüsü (SPB)



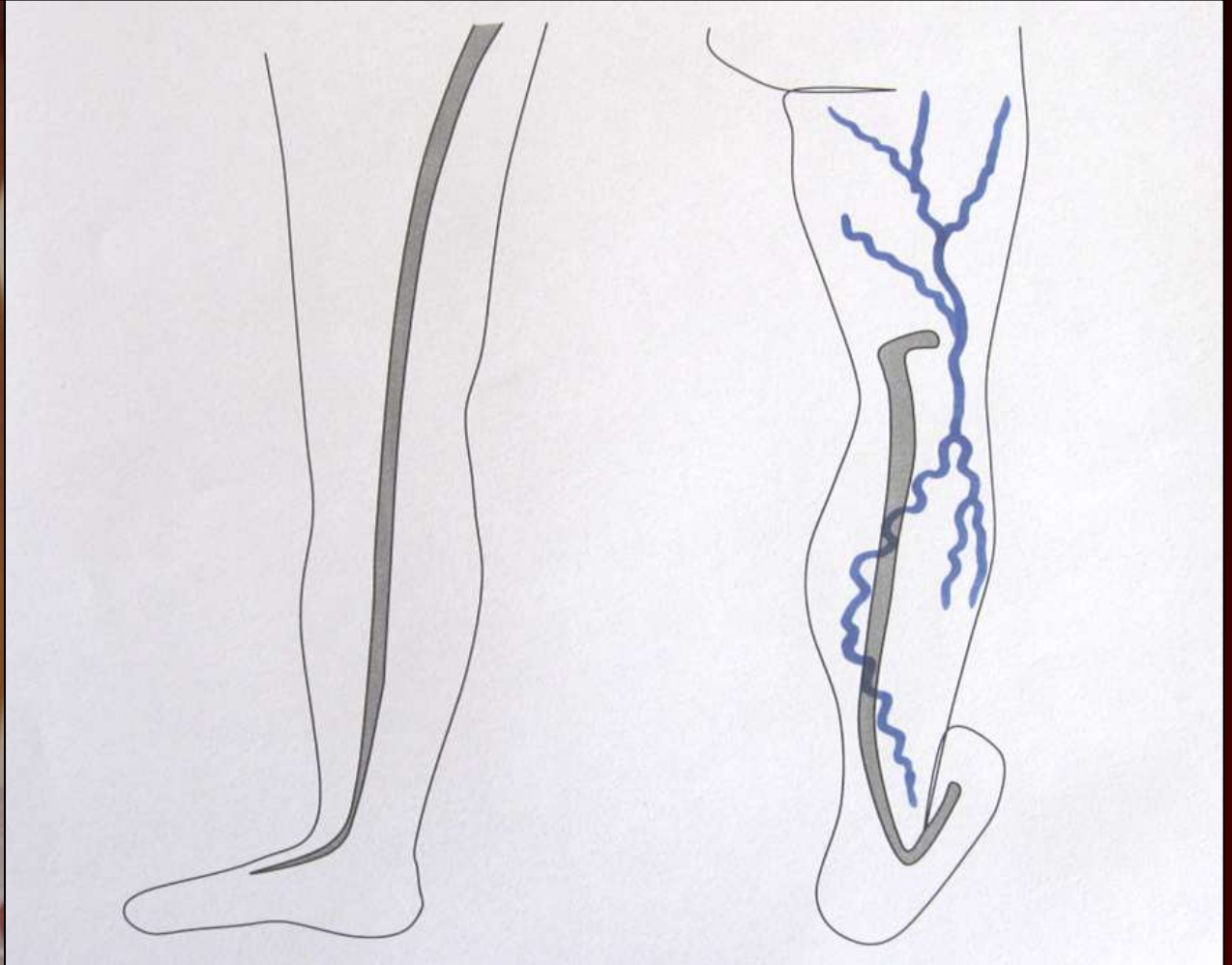
Gonadal-pelvik ven reflüsü



Perforan ven reflüsü

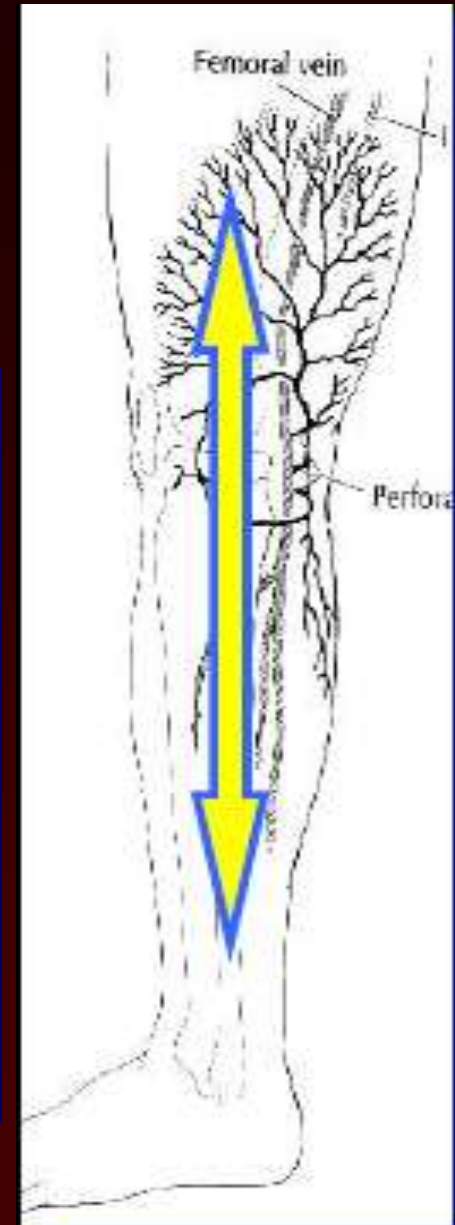


Lateral subdermal plexus (LSP) reflüsü

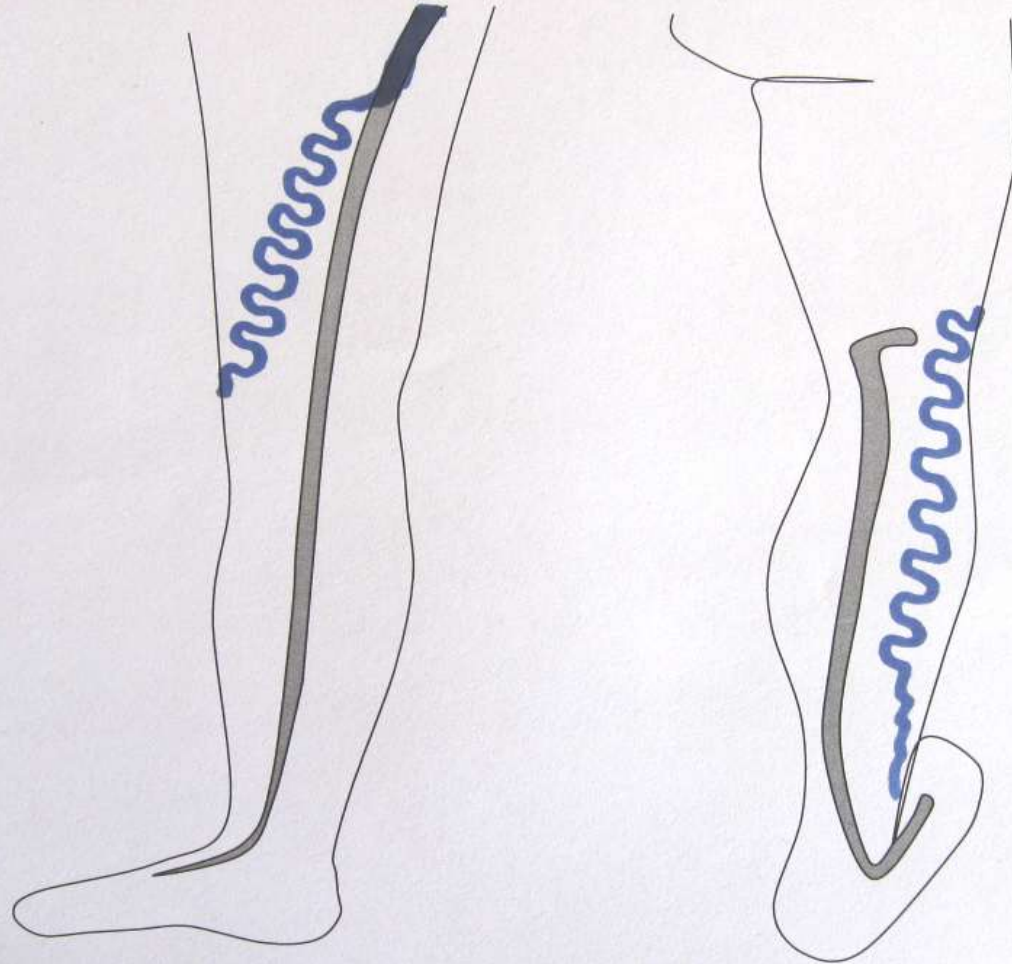


Lateral subdermal venöz plexus

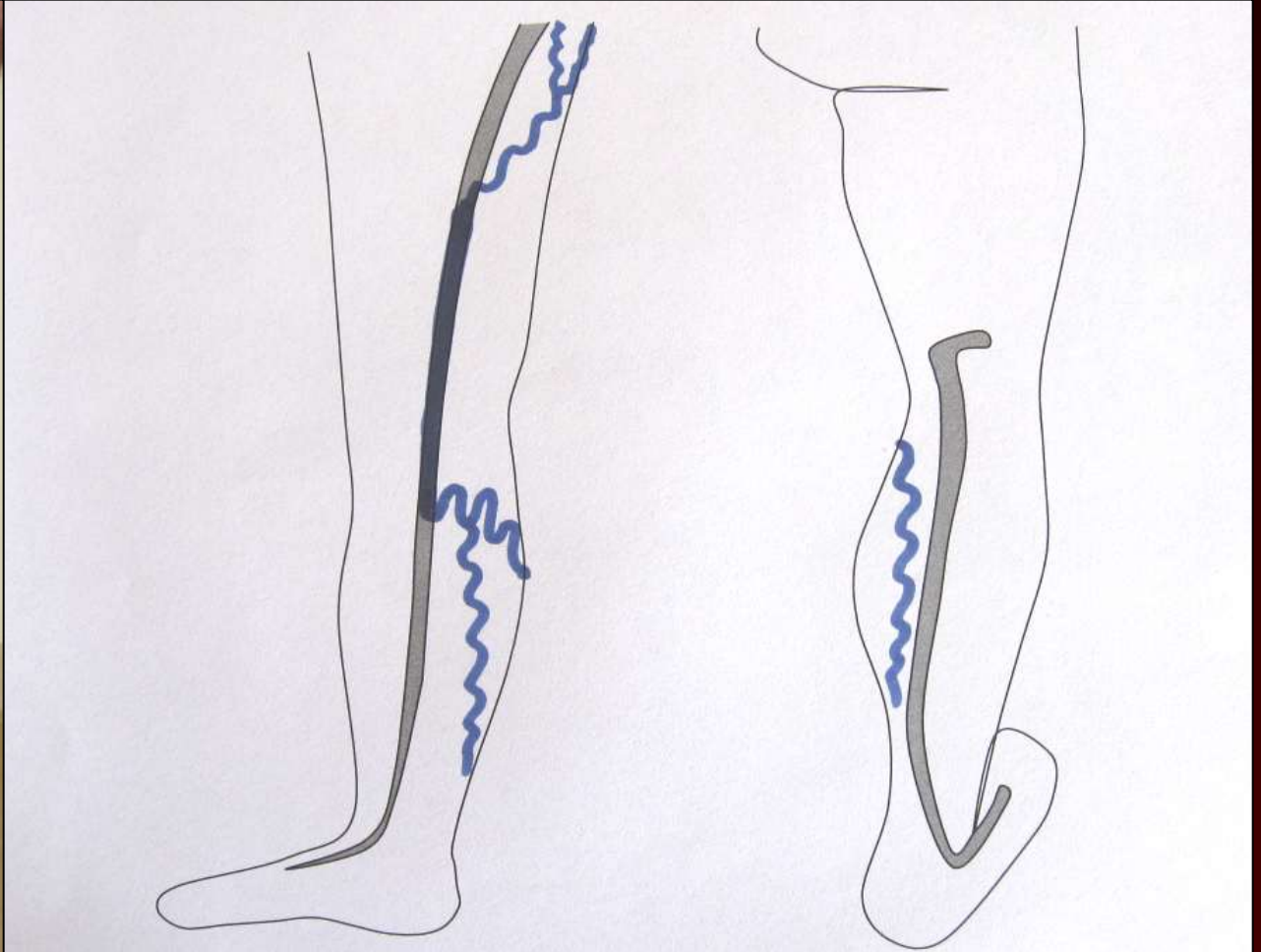
- Derin venöz sistemin embriyolojik remnantı
- DVS ile multipl küçük perforanlar
- Retiküler + spider network
- Diz posterolaterali, prox + distal
- Doppler US de reflü +, kaynak ?



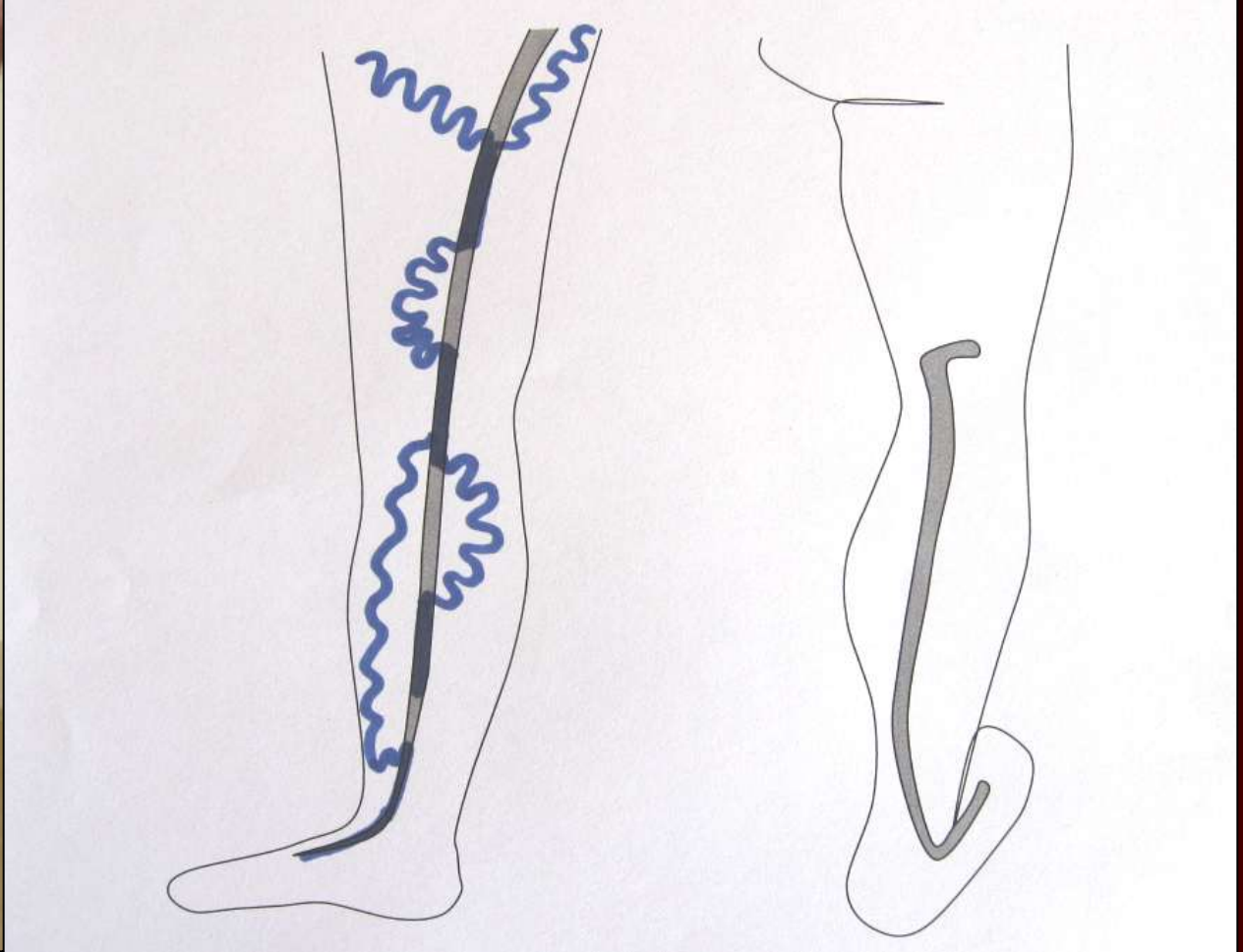
VSM + Anterolateral dal reflüsü



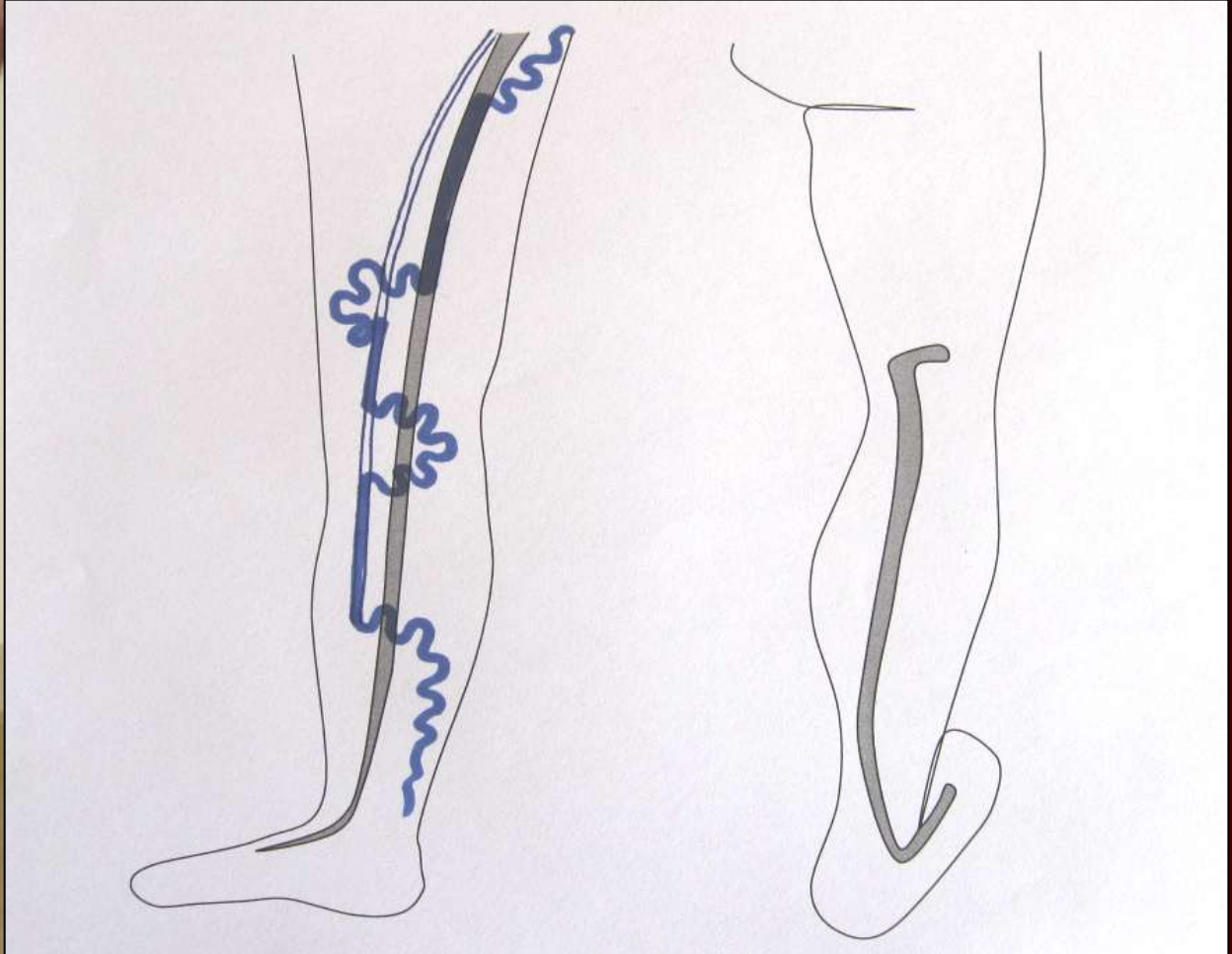
Gonadal ven + VSM reflüsü



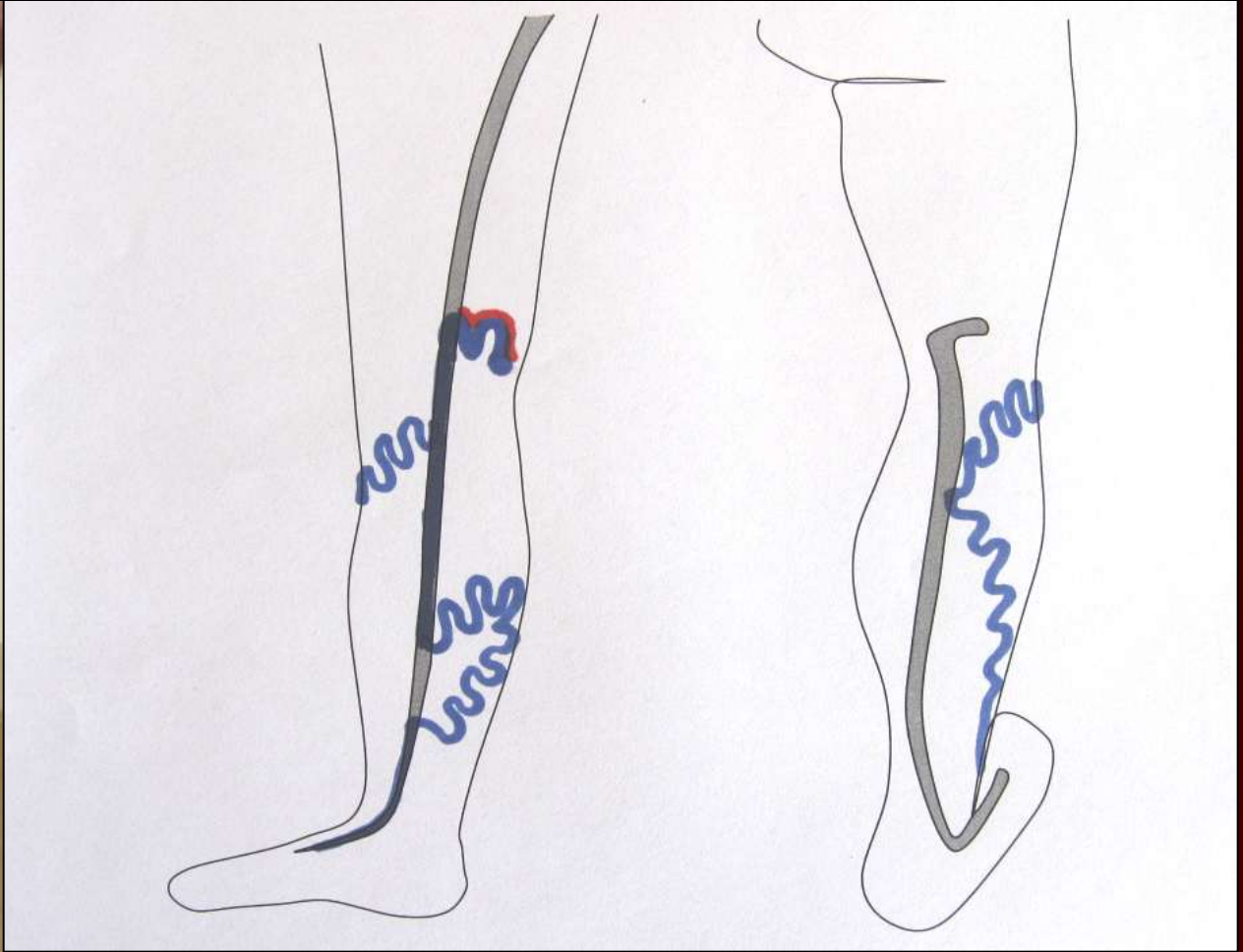
Gonadal ven + yamalı VSM reflüsü



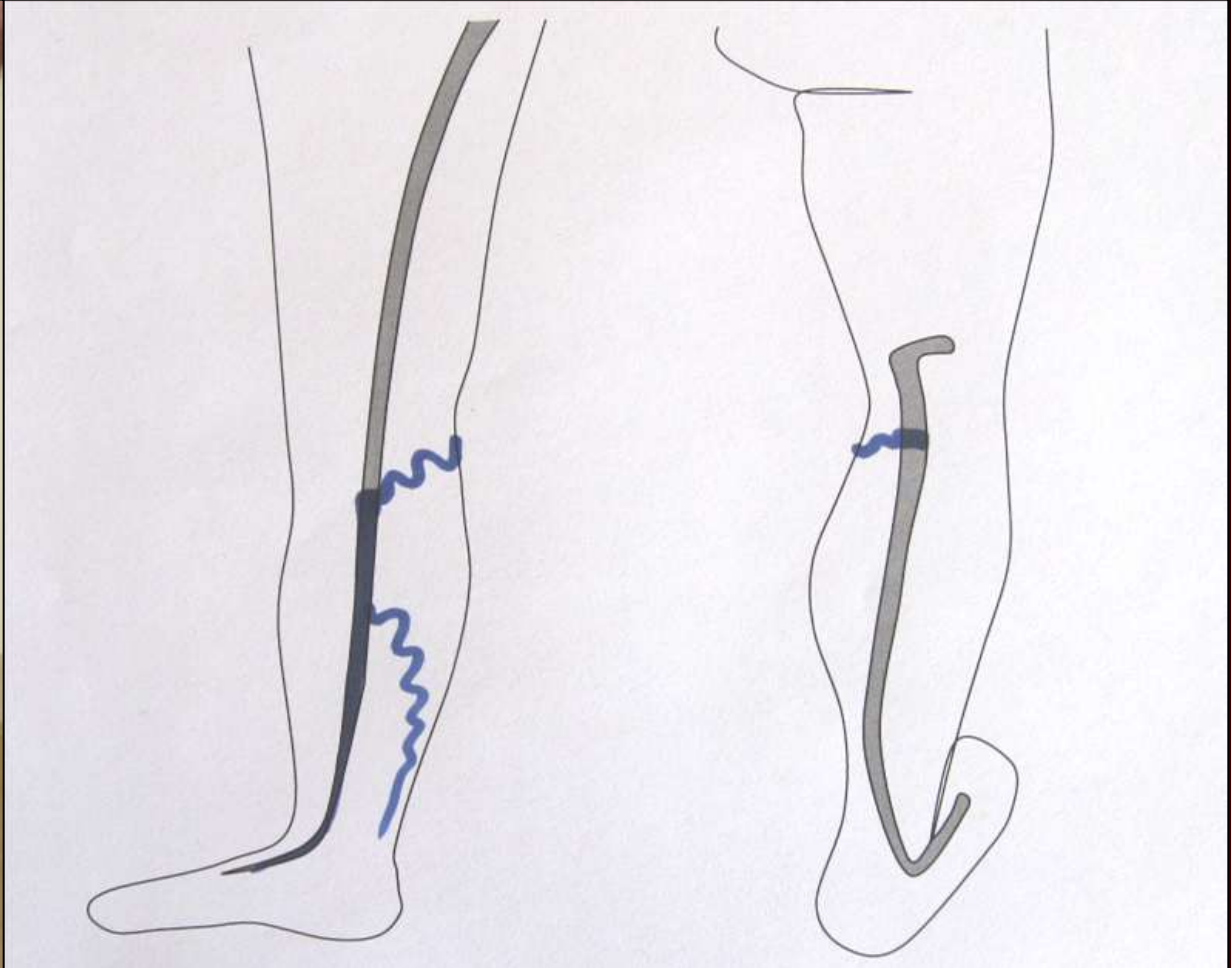
Gonadal + çift VSM reflüsü



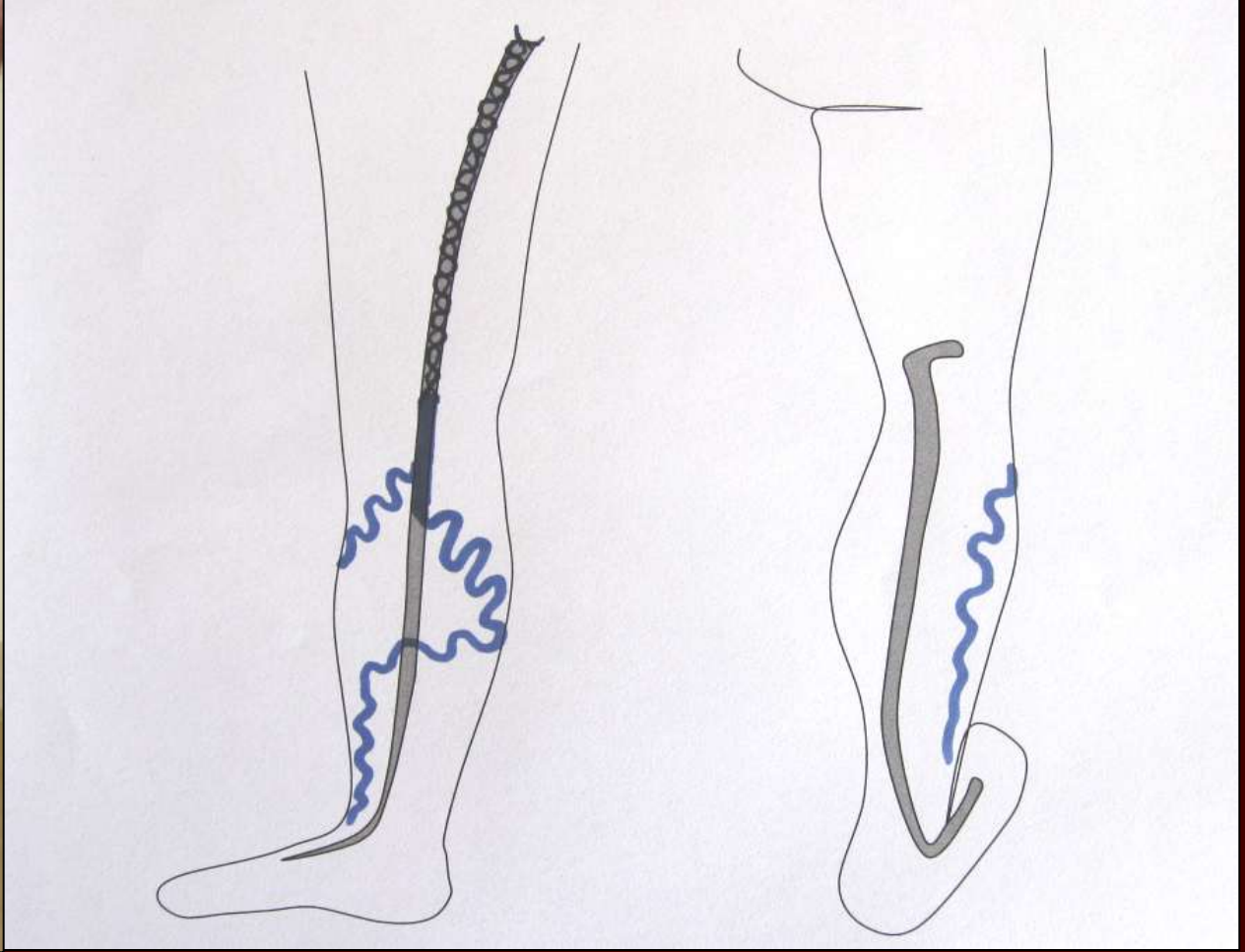
Hunter perforanı + VSM reflüsü



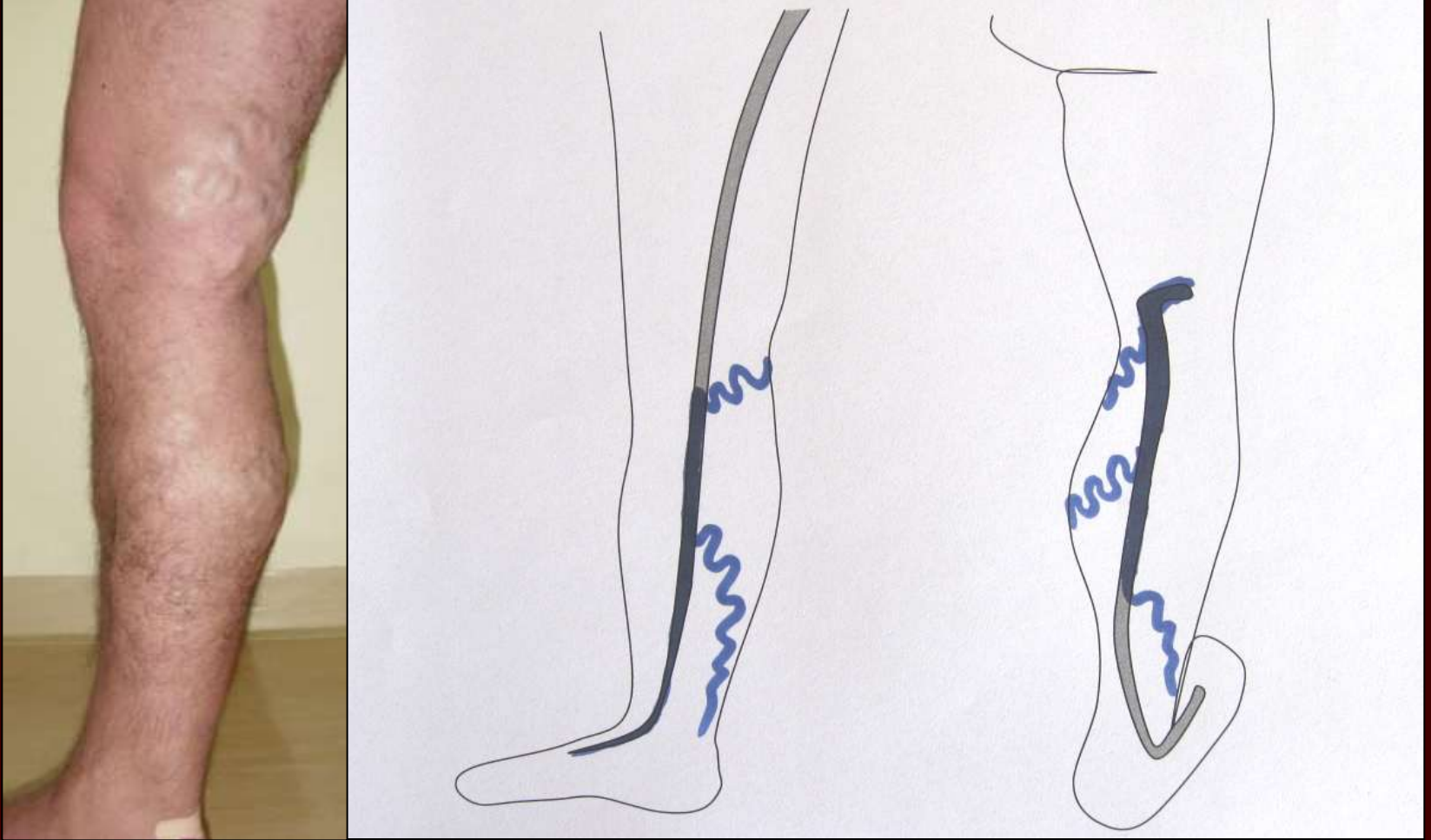
İzole komünikan + VSM reflüsü



L&S sonrası nüks VSM reflüsü



VSP ye bađlı VSM reflüsü



YVY tedavi prensipleri

- **Öncelikle reflü (neden) tedavi edilmeli**
(Birden fazla reflü: prox→distal)

Skleroterapi ve varisektomi uygulaması !

VSM, VSP: Endovenöz Lazer, RF, Cerrahi

Gonad/pelvik: Köpük skleroterapi / embolizasyon

Perforan: EVL, RF, Sklero (köpük), cerrahi

LSVP: Skleroterapi (köpük)

- **Sonra varislerin (=sonuç) tedavisi**
Skleroterapi (köpük), flebektomi

Endovenöz lazer + skleroterapi

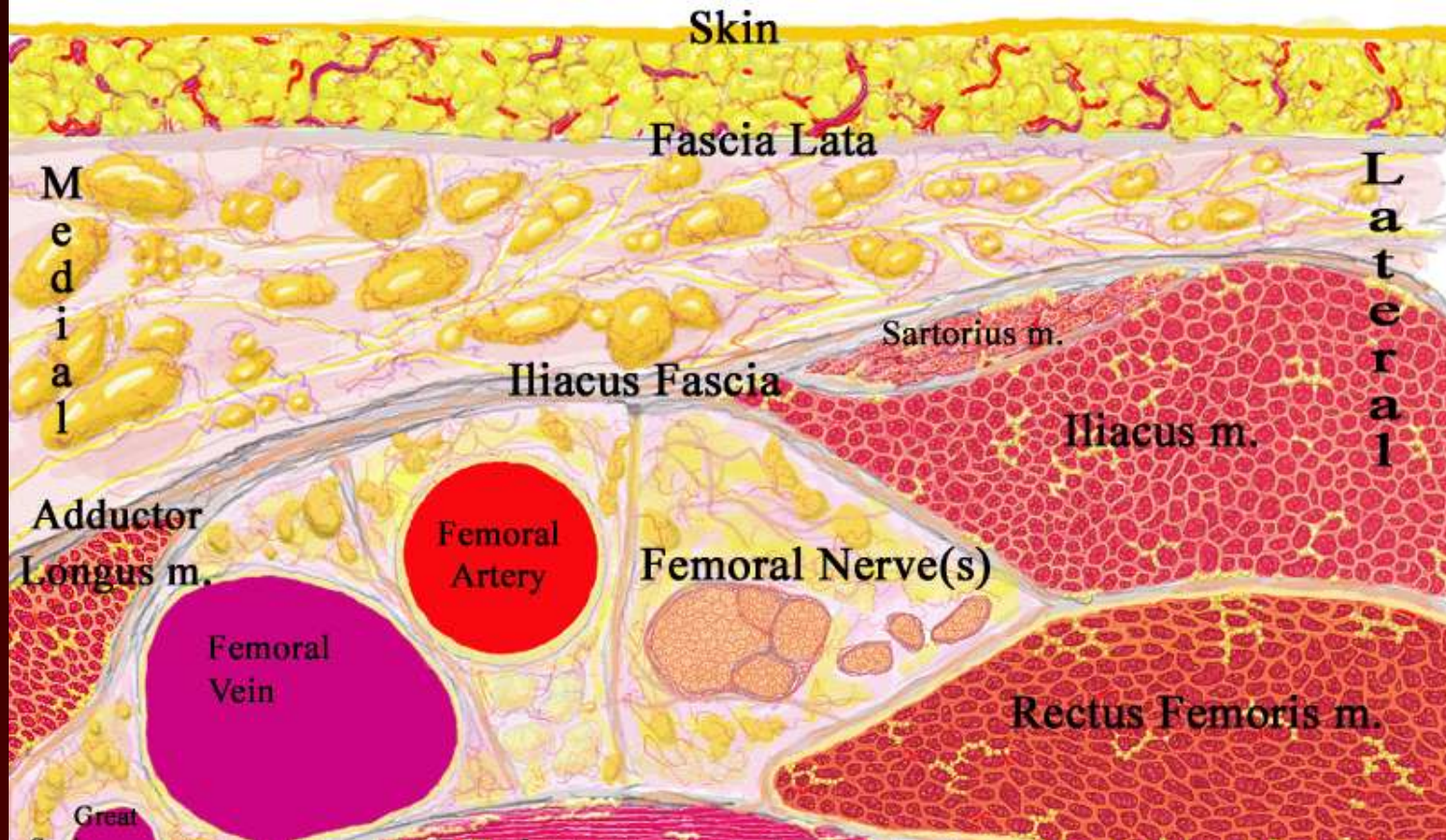


Endovenöz lazer Teknik

- Düz ve kalın venlerin ablasyonunda ideal (>%95)
 - VSM, VSP, yan dalları, Giacomini, perforan venler
- Mümkün olduğu kadar uzun bir segment
- Damar çapı ve torsiyosite önemsiz
 - Çap; iyi tumescent, büküntü; hidrofilik tel, gerekirse 2. girişim
- Enerji: 50-70 Joule/cm; çap ↑ ise artır, reflü orijininde artır (SFB, SPB), diz altında azalt
- Anestezi erken mobilizasyona engel olmamalı
 - Lokal tümesent anestezi, US eşliğinde femoral-siyatik blok

US kılavuzluğunda femoral blok

Structures Seen on Ultrasound in Left Femoral Space
(viewed from foot)



Endovenöz lazer Teknik

- Bilateral yetmezlikte aynı seans-ayrı seans EVL?
 - Ekonomik, kompresyon ↓ , hasta tercihi
- EVL ile skleroterapi-miniflebektomi aynı seans-ayrı seans ?
 - Kompresyon ↓ , lokal anestezi, hasta tercihi

Thromboz - intimal hasar

Intimal hasar ↑ : Kalıcı oklüzyon

Thromboz ↑ : Recanalizasyon

Intimal hasar = ↑ Enerji + ↓ Kan

1. Lümeninde kan minimal olmalı

- İyi tūmesent anestezi

2. Damar duvarına yeterli enerji

- 40-70 Joule/cm

3. Lazer dalga boyu ???

- Pek önemli değil

Tümesent anestezi

1. Lokal anestezi:

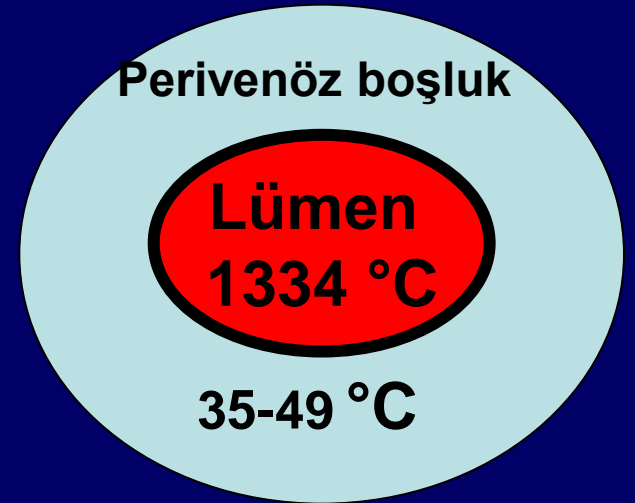
- Ağrısız işlem

2. Isı yalıtımı:

- Perivenöz dokunun korunması

3. Damar kompresyonu

- Ven lümenindeki kanı boşaltır
- Intimal hasar > Tromboz
- Kalıcı kapanma



EVL avantajlar

- 1. Lokal anestezi**
- 2. Erken mobilizasyon**
- 3. Günlük yaşama hemen dönüş**
- 4. Düşük komplikasyon**
- 5. Hasta memnuniyetini fazla**

EVL sonuçlar

- 1. %90-95 kalıcı oklüzyon**
- 2. Mortalite ?**
- 3. Komplikasyon**
 - Ağrı, ekimoz (2-4 hafta)**
 - DVT, parestezi <%1**
 - Cilt yanığı, PE, AVF olgu sunumu**
- 4. Cerrahi tedaviden daha iyi**
- 5. Prospektif randomize çalışma?**