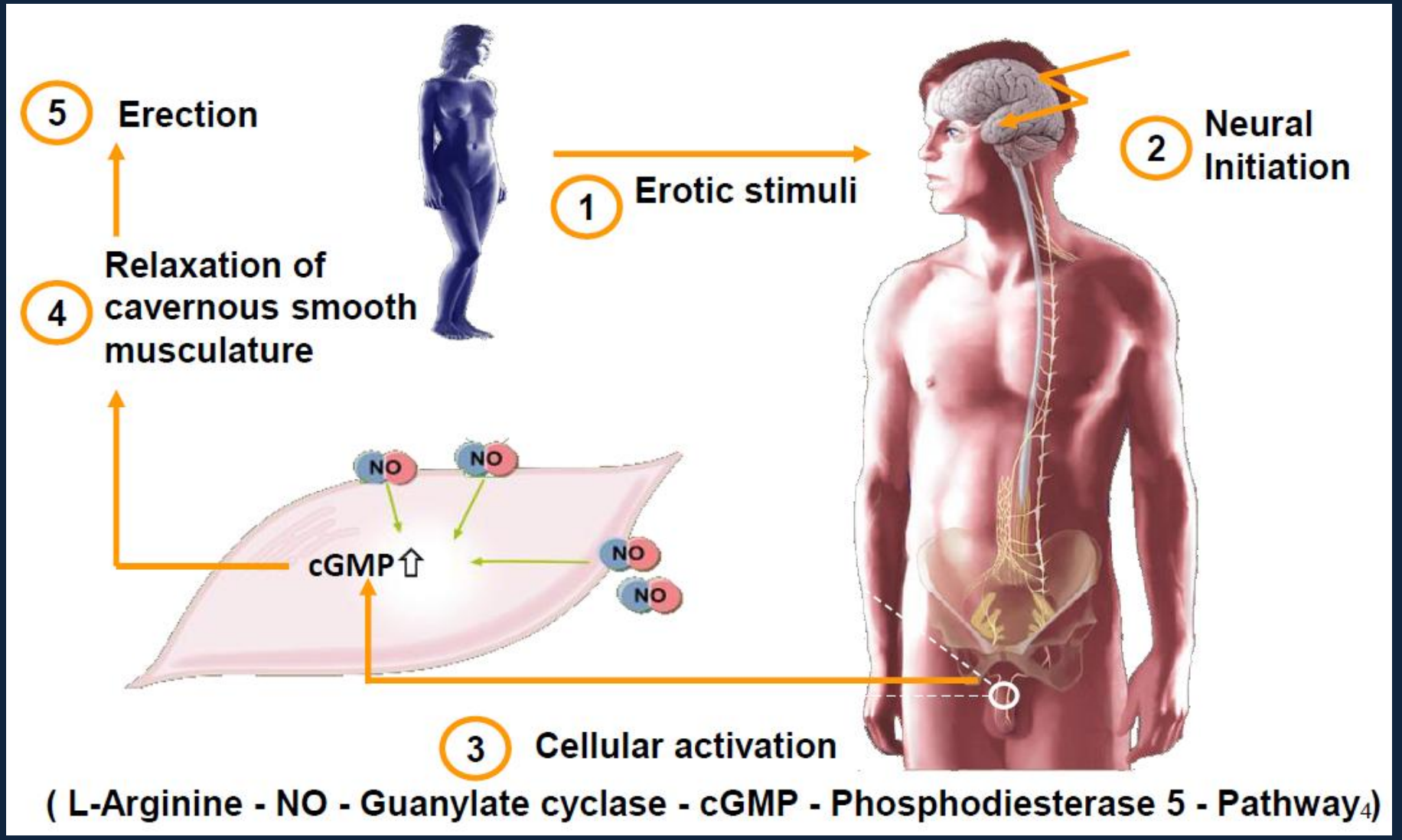
Hipertansif Hastada Erektil Disfonksiyon Tedavisi

Prof. Dr. Önder YAMAN, FECSM

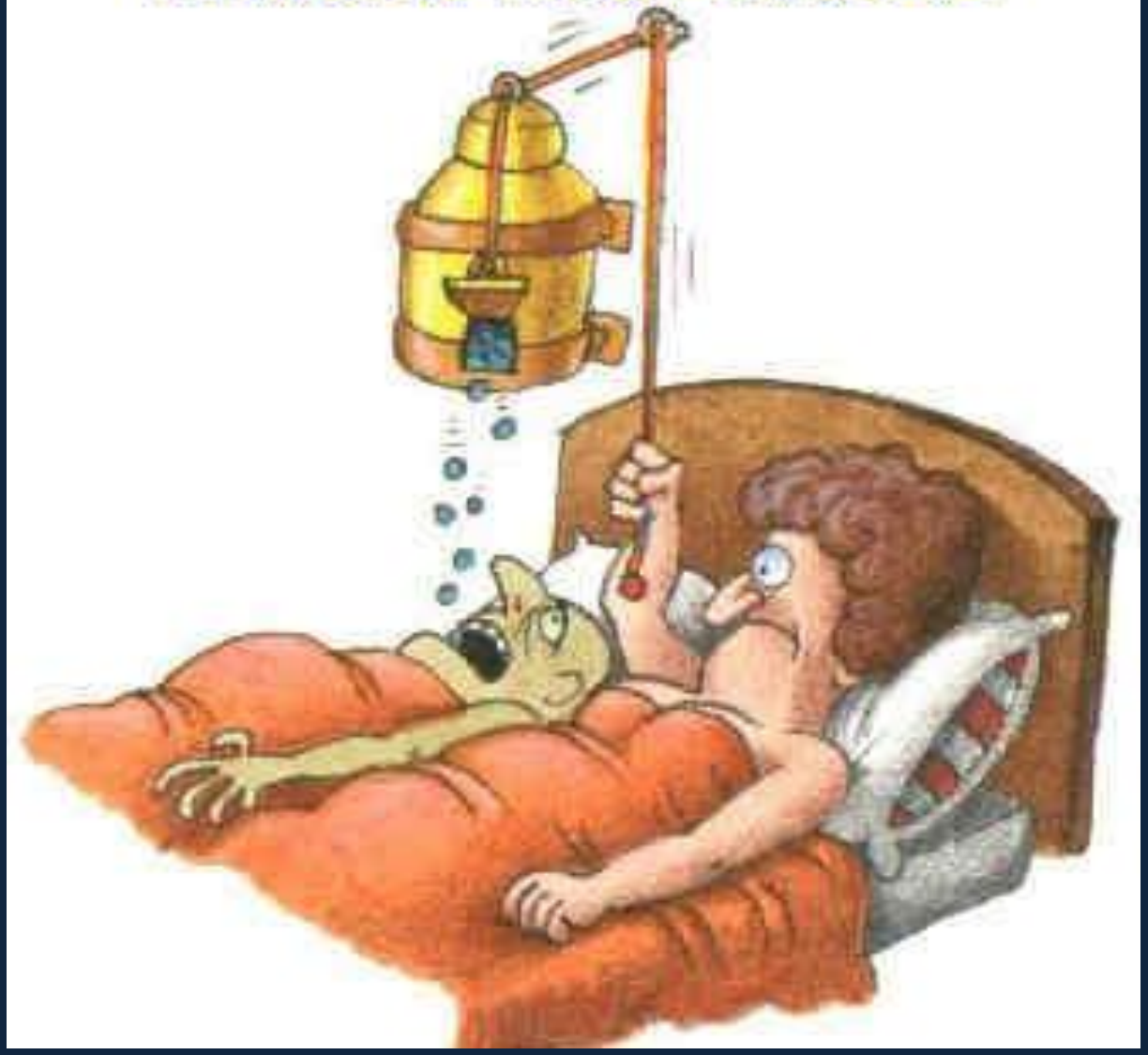
Ankara Üniversitesi Tıp Fakültesi

Üroloji



(L-Arginine - NO - Guanylate cyclase - cGMP - Phosphodiesterase 5 - Pathway4)

EMERGENCY VIAGRA DISPENSER

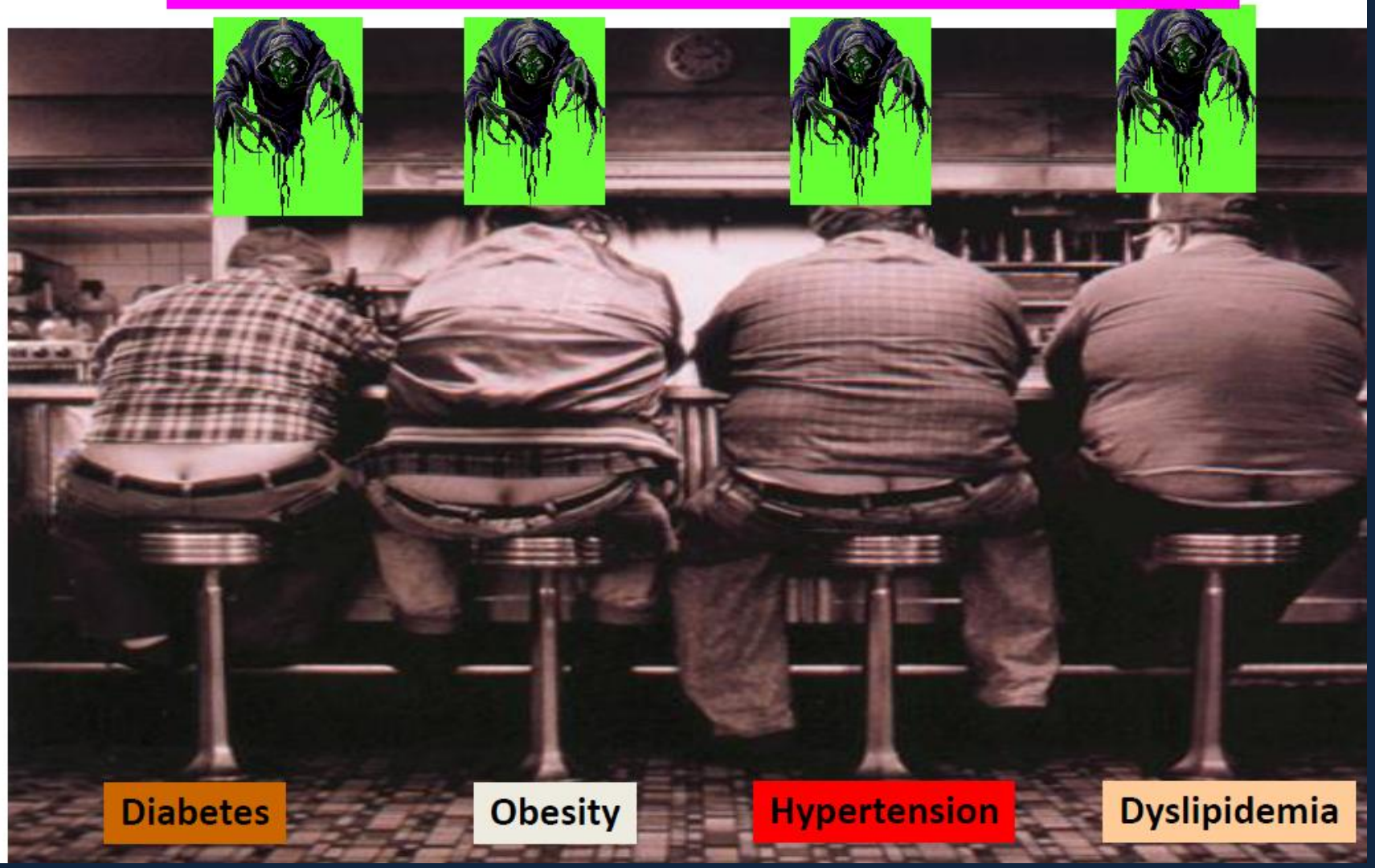



VALLA TALAT,
NE EV İSTERİM,
NE ARABA... ERKEN
BOŞALMA YETER!

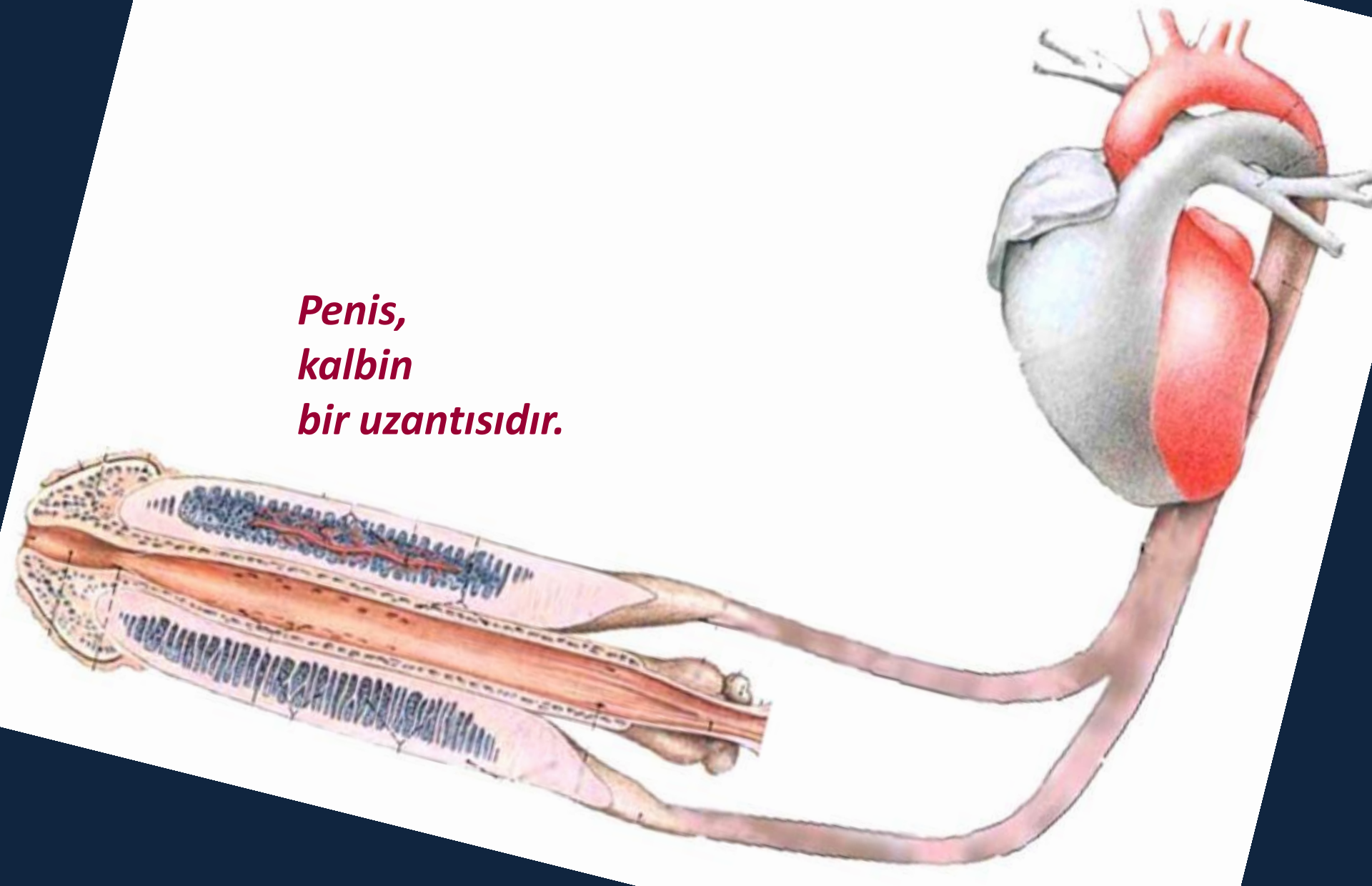
Oksidatif Stres: Endotel Disfonksiyonu

ED: Barometer of Men's Health

The Deadly Quartett : Metabolic Syndrome



Penis,
kalbin
bir uzantısıdır.



ED hastası = Kalp hastası

- Princeton Mutabakat Panelleri öyle diyor!

Sexual Dysfunction and Cardiac Risk (the Second Princeton Consensus Conference)

John B. Kostis, MD[a,*], Graham Jackson, MD[b], Raymond Rosen, PhD[a], Elizabeth Barrett-Connor, MD[c], Kevin Billups, MD[d], Arthur L. Burnett, MD[e], Culley Carson III, MD[f], Melvin Cheitlin, MD[g], Robert Debusk, MD[h], Vivian Fonseca, MD[i], Peter Ganz, MD[j], Irwin Goldstein, MD[k], Andre Guay, MD[l], Dimitris Hatzichristou, MD[m], Judd E. Hollander, MD[n], Adolph Hutter, MD[o], Stuart Katz, MD[p], Robert A. Kloner, MD, PhD[q], Murray Mittleman, MD[r], Francesco Montorsi, MD[s], Piero Montorsi, MD[t], Ajay Nehra, MD[u], Richard Sadovsky, MD[v], and Ridwan Shabsigh, MD[w]

(Am J Cardiol 2005;96:313–321)

1. 1999

2. 2004

ED hastası = Kalp hastası

Conclusions. The recognition of ED as a warning sign of silent vascular disease has led to the concept that a man with ED and no cardiac symptoms is a cardiac (or vascular) patient until proven otherwise. Men with ED and other cardiovascular risk factors (e.g., obesity, sedentary lifestyle) should be counseled in lifestyle modification. **Jackson G, Rosen RC, Kloner RA, and Kostis JB. The second Princeton consensus on sexual dysfunction and cardiac risk: new guidelines for sexual medicine. J Sex Med 2006;3:28–36.**

- ED, kardiak semptomu olmayan bir olguda, **sessiz** bir **vasküler hastalığın** uyarı sinyalidir (aksi ispat edilene kadar).

2010

3.

DIAGNOSIS AND TREATMENT GUIDELINES

MAYO CLINIC

The Princeton III Consensus Recommendations for the Management of Erectile Dysfunction and Cardiovascular Disease

Ajay Nehra, MD; Graham Jackson, FRCP, FESC; Martin Miner, MD; Kevin L. Billups, MD; Arthur L. Burnett, MD, MBA; Jacques Buvat, MD; Culley C. Carson, MD; Glenn R. Cunningham, MD; Peter Ganz, MD; Irwin Goldstein, MD; Andre T. Guay, MD; Geoff Hackett, MD; Robert A. Kloner, MD, PhD; John Kostis, MD; Piero Montorsi, MD; Melinda Ramsey, PhD; Raymond Rosen, PhD; Richard Sadovsky, MD; Allen D. Seftel, MD; Ridwan Shabsigh, MD; Charalambos Vlachopoulos, MD; and Frederick C. W. Wu, MD

Mayo Clin Proc. August 2012;87(8):766-778

Princeton'III

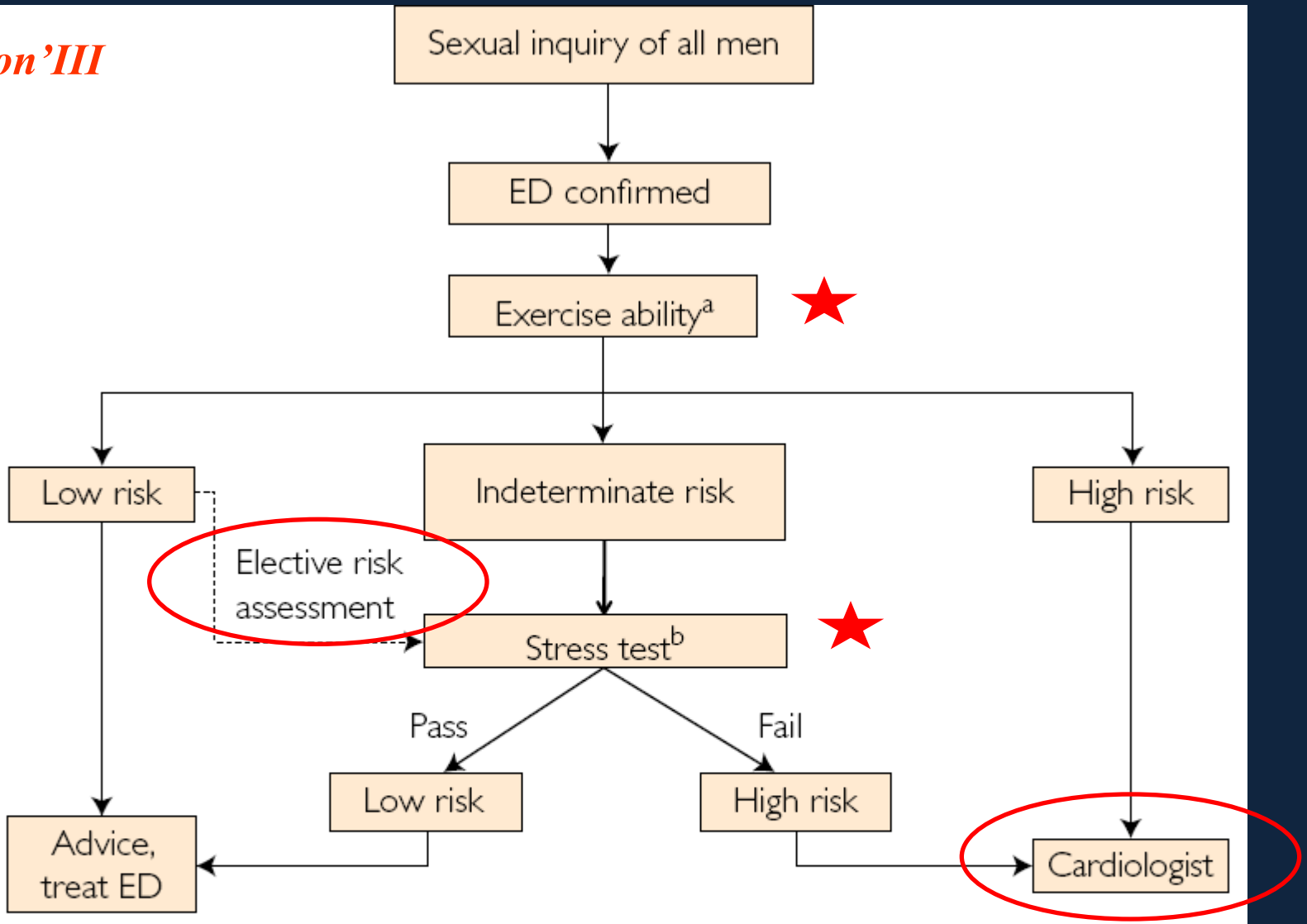
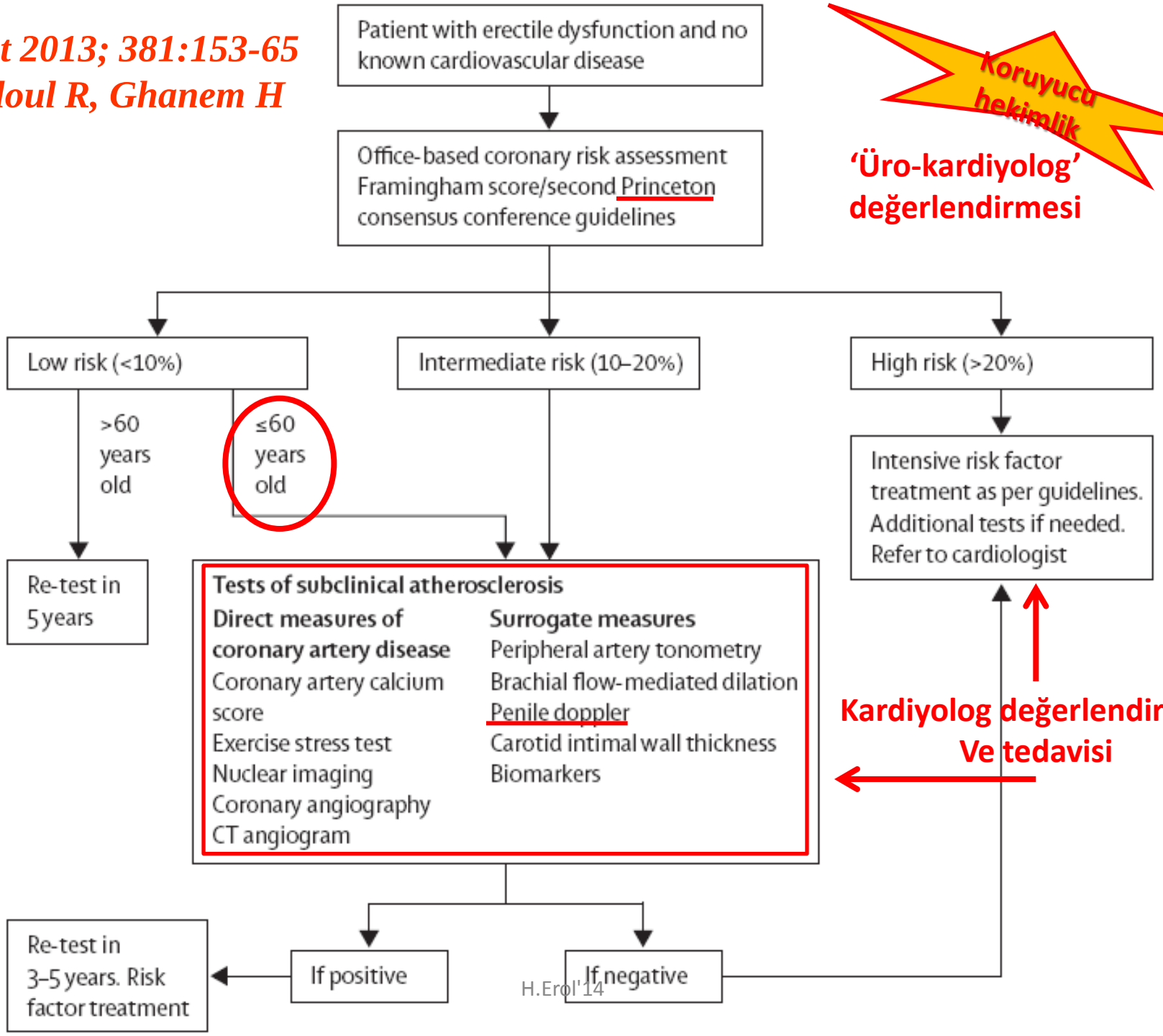


FIGURE. Management of erectile dysfunction (ED) in all men with ED, especially those with known cardiovascular disease. [a]Sexual activity is equivalent to walking 1 mile on the flat in 20 minutes or briskly climbing 2 flights of stairs in 10 seconds. [b]Sexual activity is equivalent to 4 minutes of the Bruce treadmill protocol.

Lancet 2013; 381:153-65
Shamloul R, Ghanem H



Koruyucu hekimlik

'Üro-kardiyolog' değerlendirmesi

Kardiyolog değerlendirmesi Ve tedavisi

Düşük Riskli Hasta

- Asemptomatik, <3 KV risk faktörü olanlar
- Angina YOK veya hafif
- Başarılı revaskülarizasyon yapılanlar (MI sonrası >6 hafta)
- Kontrollü HT,
- Hafif kapak hastalığı, MVP
- LV disfonksiyonu-KKY NYHA sınıf 1 olanlar,
- Yeni yapılan efor testinde iskemi gelişmeden ≥5 METS e ulaşan hastalar,
- Perikardit
- Atriyal fibrilasyon (hız kontrollü)

Daha ileri tetkik ve araştırma gerektirmeden cinsel ilişkiye başlayabilir-devam edebilir

ED tedavisi başlanabilir

Orta Riskli Hasta

- Asemptomatik, ≥3 risk faktörü olanlar (cinsiyet hariç)
- Orta Stable Angina,
- Yeni MI (≥ 2-6 hafta)
- KKY NYHA sınıf 2-3,
- İnme/TIA öyküsü olan hastalar,
- Aterosklerotik hastalık (PAH)

Cinsel ilişkiye başlamadan önce veya ED tedavisi öncesi ileri araştırma gerektirir.

Yüksek Riskli Hasta

- Kararsız AP veya Refraktör AP,
- Kontrolsüz HT,
- NYHA sınıf 4 KKY hastalar,
- Yeni MI (<2 hafta)
- Yüksek riskli aritmi (egzersiz induved VT),
- HOCMP (ciddi semptomu olan)
- Şiddetli kapak hastalığı (özellikle AD)

Cinsel ilişkiyi ertelemeli ve kardiyak durumlar stabilize olana kadar, tüm seksüel aktivite ve ED tedavisi ertelenmeli

ED tedavisinde Amaç

- Sadece rijid ereksiyonu sağlamak değil tatminkar seksüel ilişkiyi sağlayabilmektir
- Risk faktörleri ve ko-morbitideler ortaya konmalıdır

Endotel Disfonksiyonunun Tedavisi: Yaşam tarzının düzenlenmesi

DM

Medical Risk Factors

	Effect	Cause	Treatment
Hypertension	The risk of ED is twice that of a normotensive man of the same age	Endothelial dysfunction Atherosclerosis	Antihypertensives
Diabetes	The risk of ED is twice that of a non diabetic man of the same age	Endothelial dysfunction Atherosclerosis Neuropathy hypogonadism	Diabetic treatment Weight loss
Dyslipidaemia	For men under 55 yrs there is no effect For men over 55 the risk of ED is almost doubled	Endothelial dysfunction Atherosclerosis	Statins

Risk Factor Modification

- Hypertension
  - Most antihypertensive agents increase risk of ED (by around 20%)
    - Certainly beta blockers and thiazides
  - Angiotensin II inhibitors (ARBs) probably improve erectile function [2-4]
    - Mechanism probably improved penile SM relaxation due to Ang II

Antihypertensive drugs	Effect on erectile function
Central acting	- - -
Diuretics	- -
Beta-blockers	-
Calcium antagonists	±
ACE-inhibitors	±
Alpha-blockers	+
Angiotensin receptor blockers	+ +

Results of these trials demonstrate that only **thiazide diuretics and beta-blockers except nebivolol** may adversely influence erectile function.

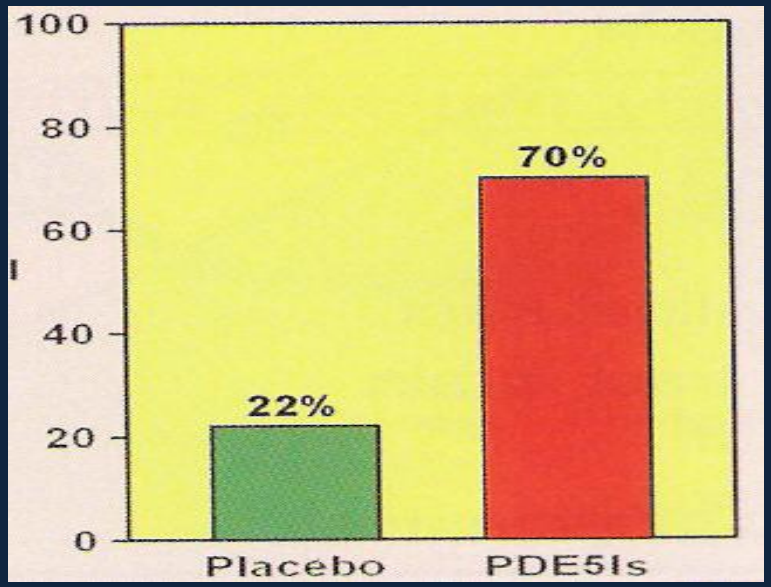
ACE-inhibitors, angiotensin receptor blockers and calcium-channel-blockers are reported to have no relevant or even a positive effect on erectile function.

ED spesifik tedaviler

	Osteoartrit	Erektil disfonksiyon
1. Aşama	NSAİ	PDE5i
2. Aşama	İntraartiküler injeksiyon	İntrakavernozal injeksiyon
3. Aşama	Artroplasti	Seks terapi, vakum, MUSE
4. Aşama	Protez	Protez

Birinci basamak PDE-5 inhibitörleri

	Sildenafil	Vardenafil	Tadalafil	Avanafil
T max (hrs)	1.16	0.66	2.0	0.6
T ½ (hrs)	3.82	3.94	17.5	1.5-5



PDE5 İnh ve GÜVENLİK

- Kardiyovaskuler olay artışı YOK
- Yaşlı ve KAH olan hastalarda, cinsel ilişki sırasındaki fizik egzersize bağlı olarak MI ve ölüm olabilir (özellikle nitratla)

PDE5 İnhibitörleri Öneriler

- Stabil KAH hastalarında (düşük risk) ED tedavisinde yararlı
- Nitrat almakta olanlarda kullanılmamalı
- Sildenafil veya vardenafil almış olan hastalarda 24 saat içinde, tadalafil almış olanlarda 48 saat içinde nitrat kullanılmamalıdır

Sexual Activity and Cardiovascular Disease : A Scientific Statement From the American Heart Association

Circulation. 2012;125:1058-1072;

ED Hastasında KVH ve HT ilaçlarının etkileri?

STATİN

- Endotel fonksiyonu: ED düzelme
- Testesteron seviyesinde azalma ?

Anti- Hipertansif İlaçlar

- Tiazid, Beta Bloker : ED yapabilir
- ACE inh, ARB, KKB nötr/+
- Alfa bloker alanlarda, PDE5i tercihen düşük dozda başlanmalı
- PDE5 i, Anti HT tedavi ile güvenle kullanılabilir

Başarısız PDE5i

Yanlış zamanlama

Doz ayarlaması yapılmaması

Aşırı alkol/yağlı yemekle birlikte alınması

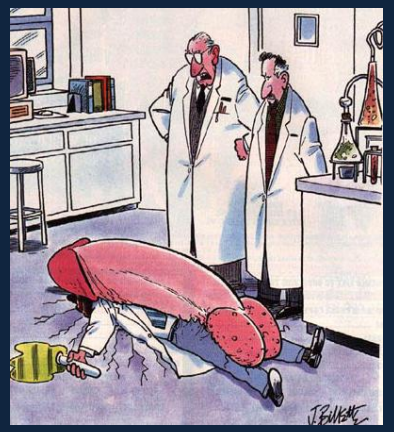
Partner ile ilgili sorunlar

Yetersiz cinsel uyarı

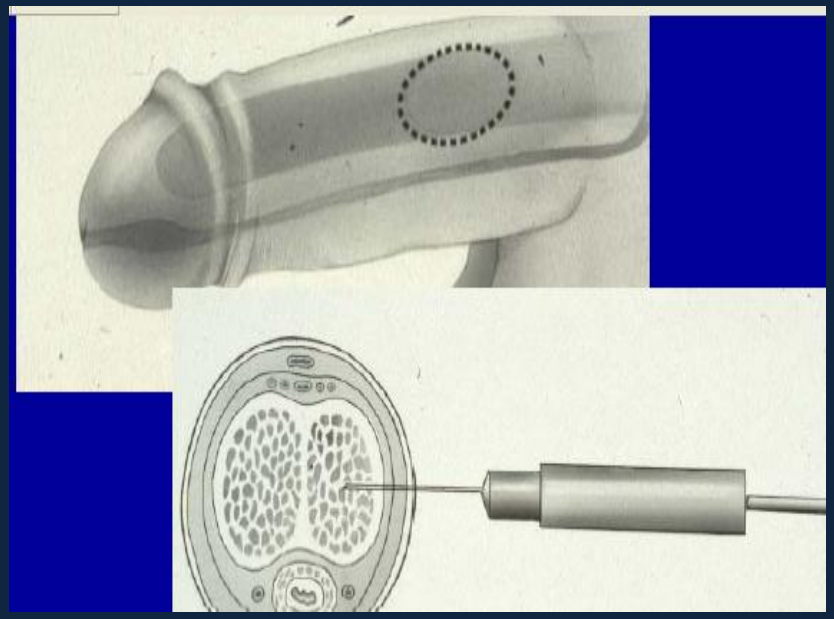
Libido kaybı

ED etyolojisi

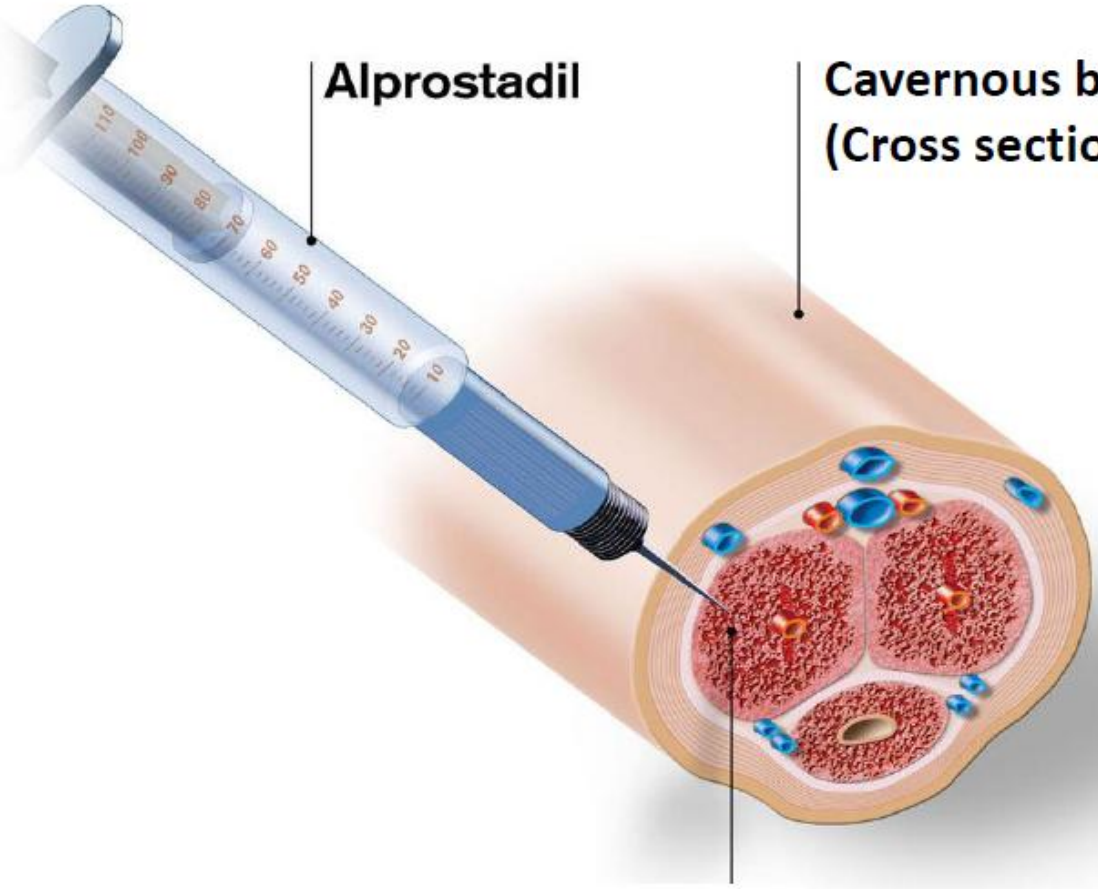
Aşırı beklentiler

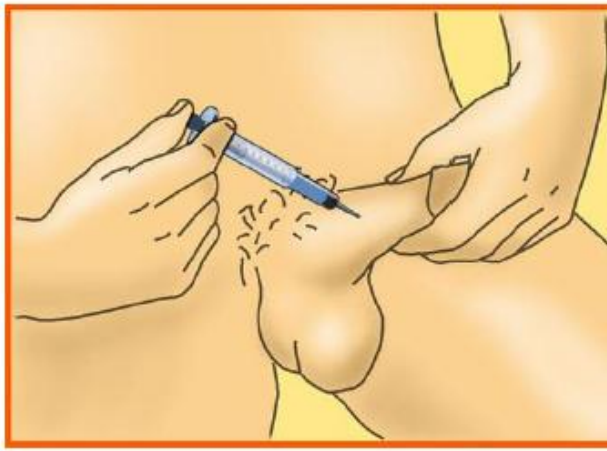


İntrakavernozal Enjeksiyon

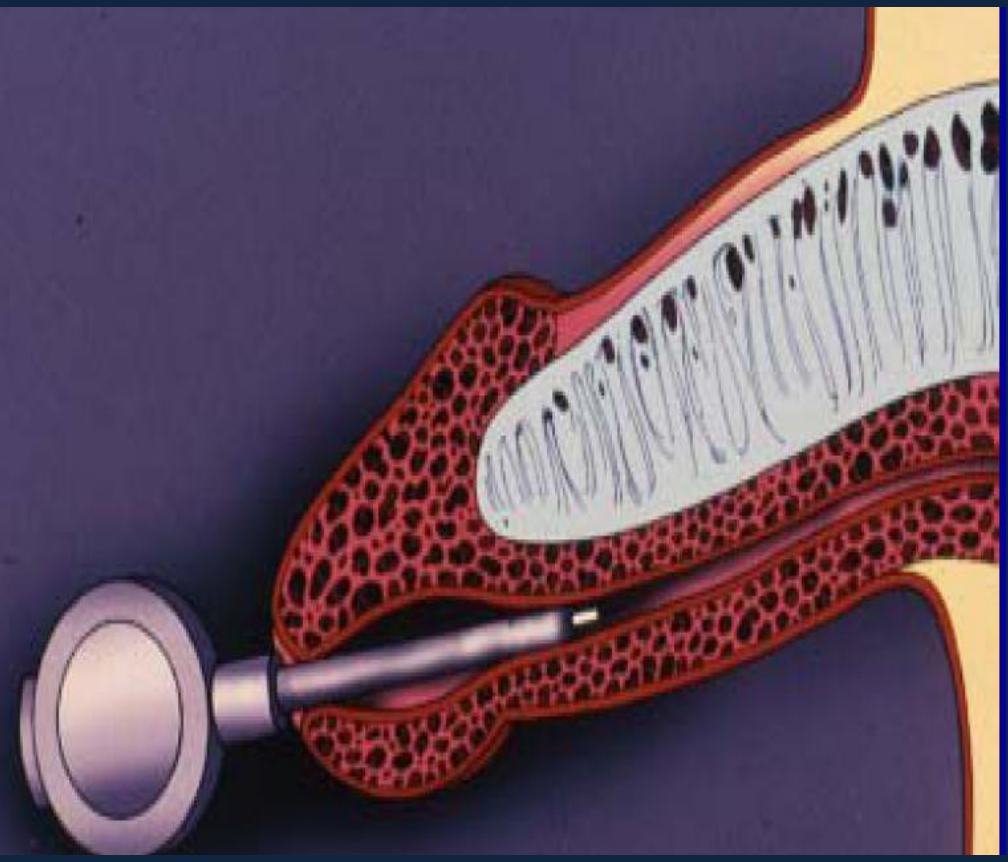


- 1980’de dönüm noktasıydı
- Papaverin-fentolamin
- Prostaglamdin E1
- VIP/Fentolamin
- Trimix
- Ağrı, fibrozis, priapismus


Alprostadil
Cavernous body
(Cross section)
Injection of Alprostadil
into the cavernous body

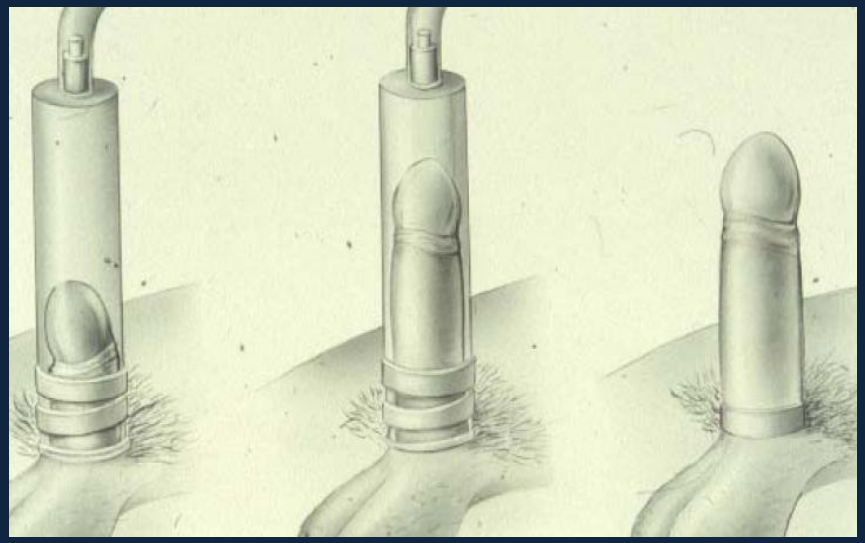


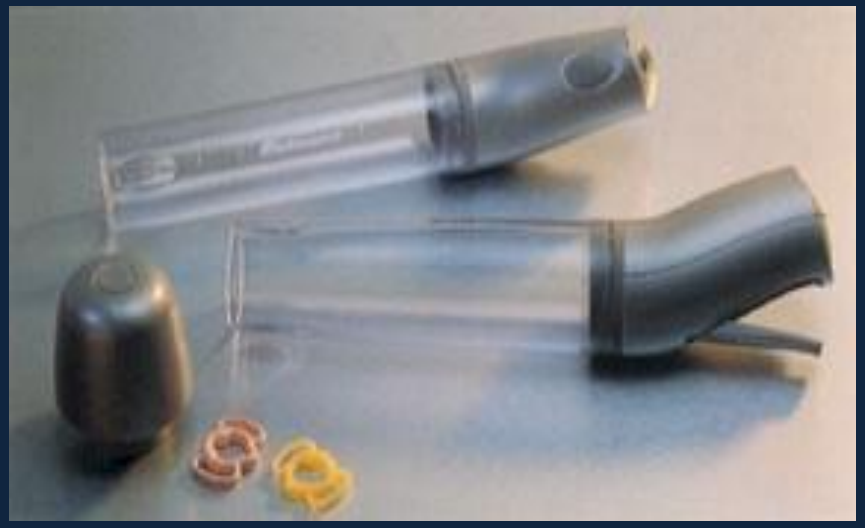
İntraüretral tedavi



- PGE1; %90'ı emiliyor ve akciğerde inaktif hale geliyor
- %10'u kavernoz dokuya geliyor
- %30'luk etki
- Hipotansiyon/senkop, ağrı, kondom

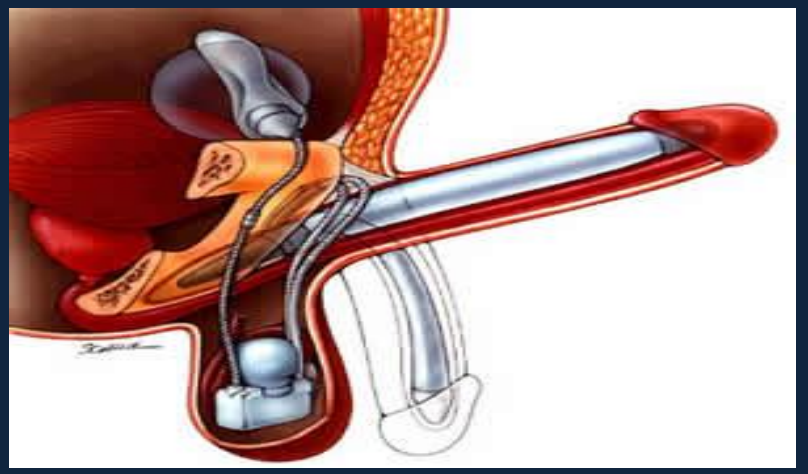
Vakum Konstrüksiyon



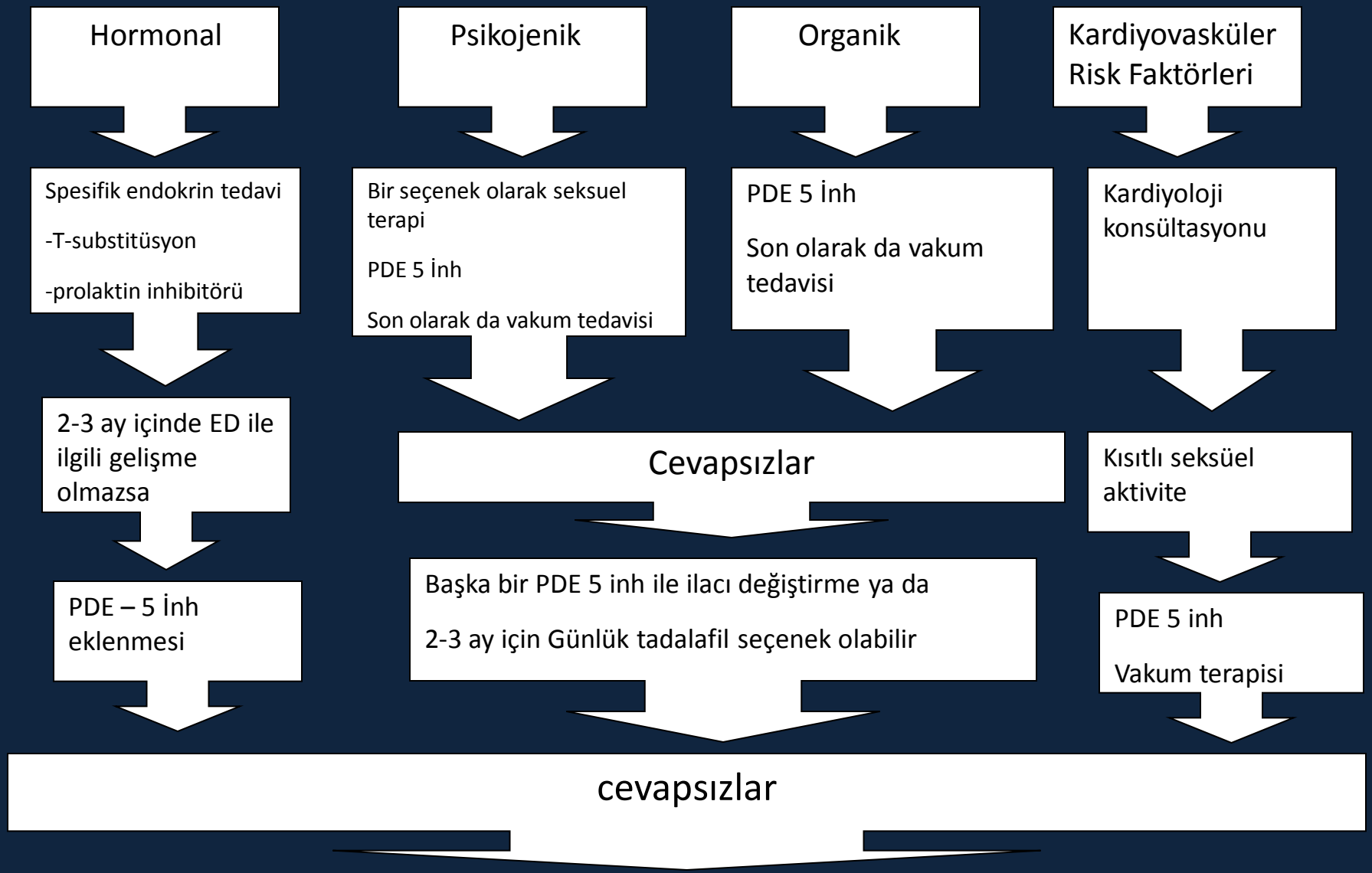


- Negatif basınç ve elastik band
- Ağrı, uyuşukluk

Cerrahi



Erektil Disfonksiyonun Tedavi Algoritması



Erektil Disfonksiyonun Tedavi Algoritması

Enjeksiyon Tedavisi

Alprostadil 20-40 microgram – Pap 30mg/ Phentol 1mg – Trimix PGE1 20,40 microgram / Papaverine 30 microgram / Phentolamine 1 mg

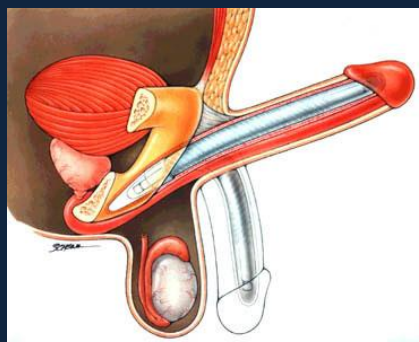
Cevapsızlar

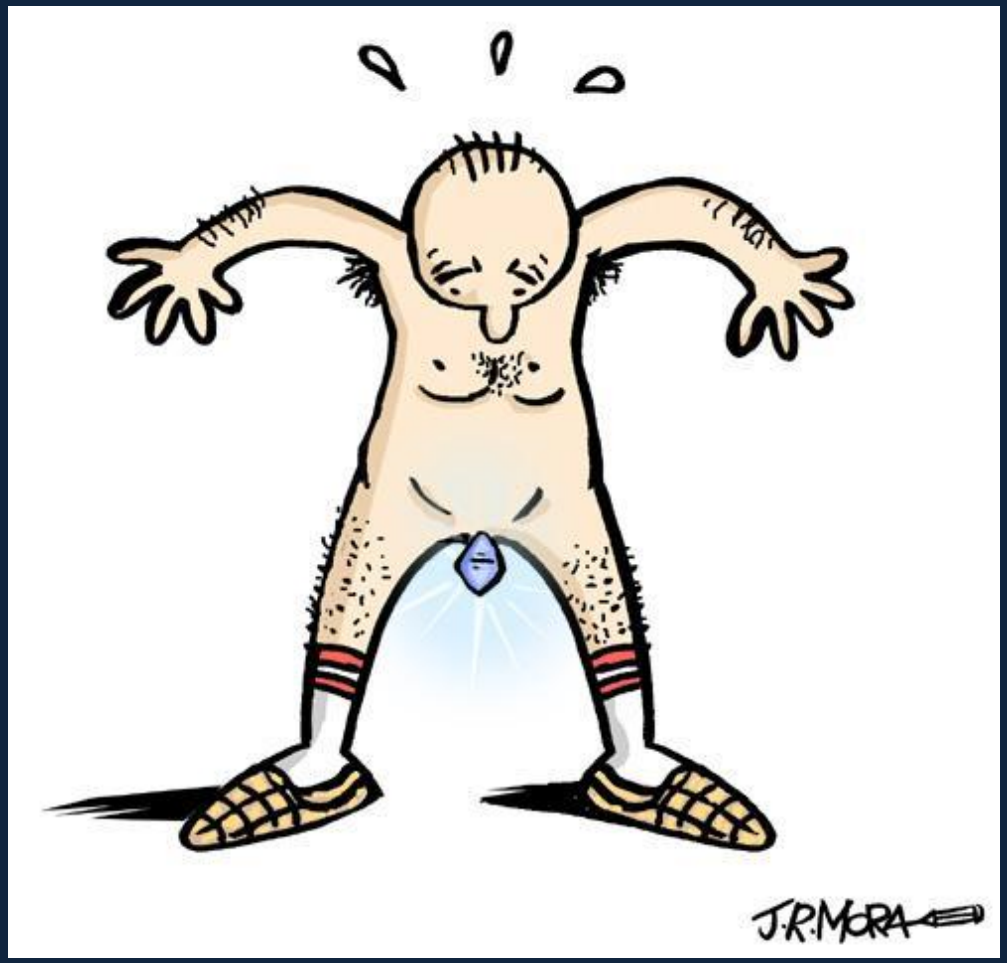
Oral ve Transüretral ya da enjeksiyon tedavisi kombinasyonu (PGE1 mono (20-40 mikrogram) Ya da Pap./Phentol. Yada Trimix

Vakum tedavisi sonrasında oral intraüretral ya da intrakavernozal tedavi ile kombinasyon

Cevapsızlar: Tüm ED hastalarının %5-10'u

PENİL PROTEZ

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