

Yan etki izlemi ve yönetimi

Dr.Gülşen Mermut

EÜTF Enfeksiyon Hastalıkları ve Klinik Mikrobiyoloji ABD-
EKMUD İznik Enfeksiyon Akademisi - 04.03.2018

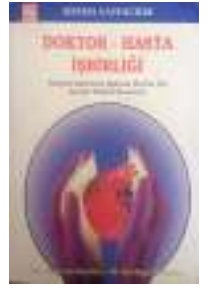
“Dünyaya hikaye anlatanlar hükmeder”

Kızılderili Atasözü

Zorlanmak iyidir

Kiřiyi geliřtirir

“Doktor-Hasta İşbirliği” Kitabı



“Tıp, insanın insana acıma ve acı içindeki kişiye yardım etme temel içgüdüsünden kaynaklandı. Hümanizmin önemi, **asırlardır tıbbın yüksek statüsü nedeniyle tümüyle hümanizme dayanmıştır** gerçeğiyle daha iyi anlaşılır. Bugün, yani 1990’da tıp eğitimi daha çok bilimsel çalışmaya ve hastalık tedavisine ağırlık veriyor”

Frank C.Spencer

“Birisinin yüreğimizin bir parçası olmasına izin verince, onu iyileştirmek aynı zamanda kendimizi iyileştirmektir”

Carol Montgomery

“Doktor-Hasta İşbirliđi” Kitabı

“Doktor, özünde bu kadar çok otorite olan bir mesleđin cazibesine karşı koyacak kadar sade bir kiři olmalı. Mesleđinin içine girdikçe ve kendini **eđitilmiş elitlerin** bir temsilcisi olarak görmeye başladıkça, hastasını kendisi gibi bir kiři olarak görme olasılıđı azalır”



Robert Katz

Yan etki

- Erken dönem ART başta olmak üzere tüm ARV ilaçlar
- Yan etki
 - Tedavi değişimi/ kesilmesi
 - Tedavi uyumsuzluğu en sık nedeni
- Yeni ARV ilaçlar, geçmişteki ARV'lerden daha az ciddi ve tolere edilemeyen yan etkiler
- Tedaviyi kısıtlayan yan etkiler ART naif hastalarda % 10'dan az

Yan etki

CD4 sayısına göre tedavi

Hasta yönetiminin odağı
erken ARV ilişkili toksisiteyi
tanıma ve yönetme



Tüm hastalara tedavi

Kemik toksisitesi

Renal toksisite

Dislipidemi

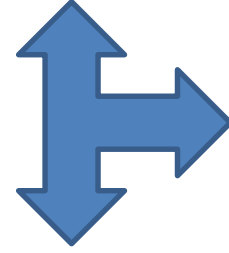
İnsulin direnci

KVH gibi **uzun** süreli
yan etkilerden

sakınmak için **bireysel**
tedaviye evrimleşme

Yan etki

- Komorbidite bulgu ve semptomları
- Kullanılan diđer ilaçlara bađlı yan etkiler
- ART yan etkileri



Benzer

Yan etki

- ART ilişkili yan etkiler
 - Akut ve yaşamı tehdit eden
 - Kronik ve sinsi
- Ciddi, yaşamı tehdit eden yan etkiler
 - ABC'e bağlı hipersensitivite
 - Semptomatik hepatotoksite
 - Ciddi cilt reaksiyonları vb.

} Tüm ARV kes, alternatif rejim
- Yaşamı tehdit etmeyen yan etki
 - Üriner taş (ATV)
 - Tubulopati (TDF) vb.

} Tüm ART'i kesmeden şüpheli ARV değişimi
- Diğer kronik, yaşamı tehdit etmeyen
 - Dislipidemi vb. → Sorumlu ilacın değişimi/ yan etki için ek ilaç

Adherence to Antiretroviral Therapy Among People Living with HIV

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- En az bir yıl ART alan 116 HIV enfekte hasta anketle değerlendirildi
- Tedavi uyumu ortalama % 91.25
- Maddi sıkıntı, ilaç almayı unutma, aile desteği kaybı, alkol kullanma, sosyal ayrımcılık ve yan etki uyumu azalttığı

Yan etki

- Tedavi deęişiminden önce
 - Hastanın tıbbi ve tüm ARV öyküsü
 - Tüm önceki direnç testi sonuçları
 - Viral tropizm (MVC)
 - HLA-B*5701 (ABC)
 - Komorbidite
 - Uyum öyküsü
 - Herhangi bir ARV intolerans öyküsü
 - Kullandığı ilaçlar
 - ilaç-ilaç etkileşimi

- 1965 doğumlu erkek hasta
- 1998'den beri izlemde (1992'de tanı, Dış Merkez), VKE: 20.4
- CD4: 250 h/ mm³ , VY: 300 000 k/ml (18.02.1998)
- **ZDV** 2x300 mg+ **3TC** 2x150 mg+ **IDV** 3x800 mg
- Trigliserid: 1798 mg/dl, Kolesterol: 475 mg/dl, LDL: 110 mg/dl, HDL: 52 mg/dl
- CD4: 397 h/ mm³ , VY: ≤ 50 k/ml (13.05.1998)

- Aynı yıl kolik tarzında ağrı
- DÜS grafisi, batın US, TİT  Normal
- Tedaviye devam
- CD4: 435 h/ mm³, VY: 1000 k/ml (05.03.1999)
- CD4: 345 h/ mm³, VY: 125 000 k/ml (04.10.2000) 



1. Bu bulgularla yaklaşımınız ne olur?

- a. Tedaviye devam ederim
- b. IDV'i keser ZDV + 3TC'e devam ederim
- c. IDV'i keser ZDV + 3TC yanına NVP eklerim
- d. Tüm ilaçlarını keser, bir ay sonra VY, CD4 bakarım

- **Tedavi:** IDV kesilerek **NVP**
- CD4: 345 h/ mm³, VY: 70 000 k/ml (11.09.2001)
- **Tedavi:** **d4T** 2x40 mg+ **ddl** 2x200 mg+ **NVP** 2x200 mg+ **RTV** 2x600
- Trigliserid: 814 mg/dl, Kolesterol: 320 mg/dl, LDL: 118 mg/dl, HDL: 43 mg/dl



2. Bu durumda ne yaparsınız?

- a. KVH riskini belirler, \leq %20 ise ARV tedaviyi deęiřtiririm
- b. Tüm ilalarını keserim
- c. Tedaviye fibrat eklerim
- d. Tedaviye simvastatin eklerim

Framingham skoru

NIH National Heart, Lung, and Blood Institute

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Home > Clinical Practice Guidelines > Cholesterol > CVD Risk Calculator

Sunday, March 22, 2015

Information for Health Professionals

- Clinical Practice Guidelines
- Heart & Vascular Information
- Lung Information
- Blood Information
- Sleep Information
- Interactive Tools and Resources
- Education Campaigns
- National Education Programs
- Continuing Education Opportunities
- Health Observances

Information about your risk score:





Age:	35
Gender:	male
Total Cholesterol:	320 mg/dL
HDL Cholesterol:	43 mg/dL
Smoker:	No
Systolic Blood Pressure:	110 mm/Hg
On medication for HBP:	No
Risk Score*	3%

Means 3 of 100 people with this level of risk will have a heart attack in the next 10 years.

* Your risk score was calculated using an equation. Other NCEP products, such as printed ATP III materials, use a point system to determine a risk score that is close to the equation score.

















Kardiyoloji: Gemfibrozil 600 mg(Lopid®)

of the drugs.

	These drugs should not be coadministered
	Potential interaction – may require close monitoring, alteration of drug dosage or timing of administration
	No clinically significant interaction expected
	There are no clear data, actual or theoretical, to indicate whether an interaction will occur
n/a	Data not available



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Antiretrovirals (NNRTIs)	Ritonavir	Nevirapine	Didanosine (ddl)	Stavudine (d4T)
Nevirapine		n/a		
Antiretrovirals (Nucleoside/tide Analogues)	Ritonavir	Nevirapine	Didanosine (ddl)	Stavudine (d4T)
Didanosine (ddl)			n/a	
Stavudine (d4T)				n/a
Antiretrovirals (Protease Inhibitors)	Ritonavir	Nevirapine	Didanosine (ddl)	Stavudine (d4T)
Ritonavir	n/a			
Lipid Lowering Agents	Ritonavir	Nevirapine	Didanosine (ddl)	Stavudine (d4T)
Gemfibrozil				

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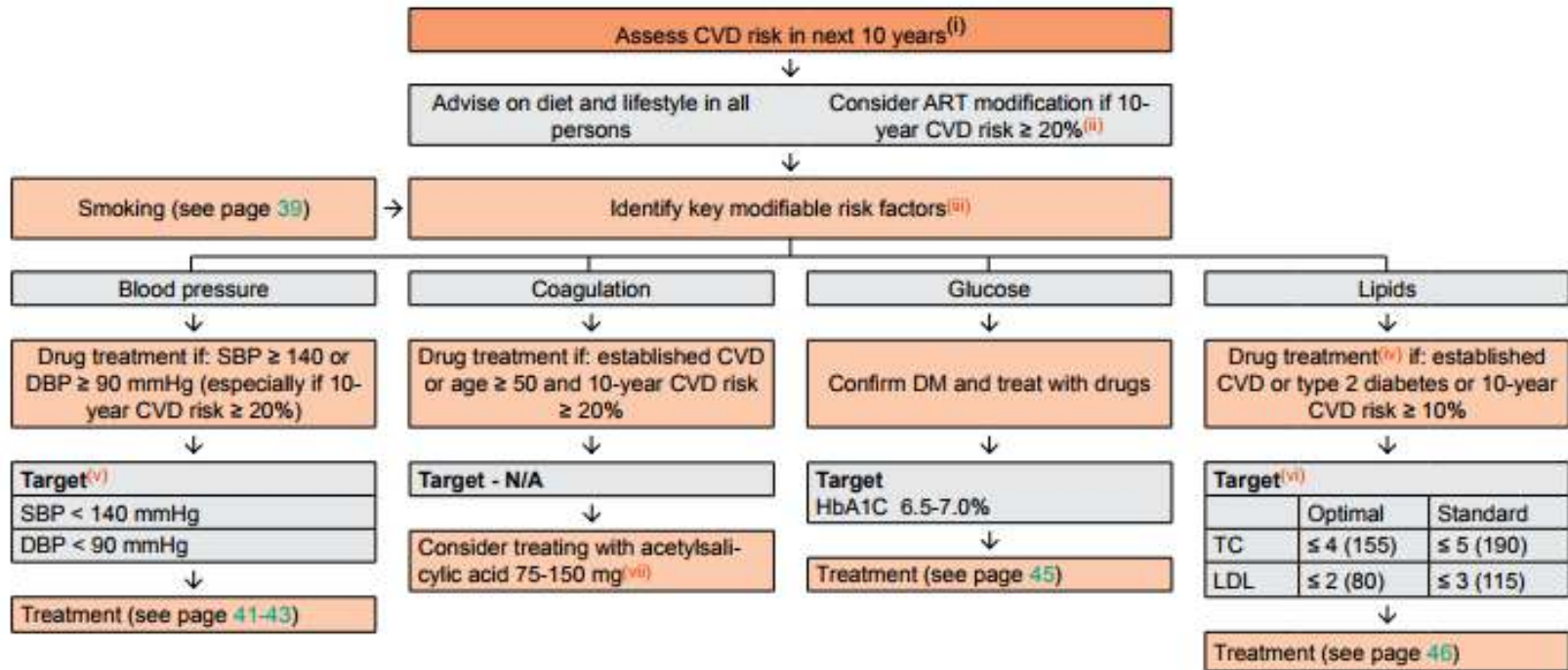
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Kardiyovasküler Hastalığı Önleme



Dislipidemi

Yan etki	NRTİ	NNRTİ	Pİ	İİ
Dislipidemi	d4T>ZDV>ABC: ↑TG ve LDL TAF: ↑TG, ↑LDL, ↑HDL (TK/HDL oranında deęişiklik yok) TDF, ABC veya TAF'dan daha düşük lipid düzeyleriyle birlikte	EFV: ↑TG, ↑LDL, ↑HDL	Bütün RTV veya COBİ destekli Pİ: ↑TG, ↑LDL, ↑HDL LPV/r ve FSV/r> DRV/r ve ATV/r: ↑TG	EVG/c: ↑TG, ↑LDL, ↑HDL

Dislipidemi

Yan etki	Yan etki öncesinde kullanılan ARV	Yan etki sonrasında ARV değişimi	Öneriler
Dislipidemi Hipertrigliseridemi (LDL yüksekliği ile birlikte veya LDL yüksekliği olmadan)	RTV veya COBI destekli rejimler EFV EVG/c	RAL DTG RPV	LPV/r ve FPV/r'de diğer RTV destekli rejimlerden daha sık TG ve LDL seviyelerinde yükseklik. LPV/r'den ATV veya ATV/r'e değişim yapılırsa TG ve LDL seviyelerinde düzelme

Dislipidemi



Drugs used to lower LDL-c

Drug class	Drug	Dose	Side effects	Advise on use of statin together with ART	
				use with PI/r	use with NNRTIs
Statin ^(i,x)	atorvastatin ⁽ⁱⁱ⁾	10-80 mg qd	Gastrointestinal symptoms, headache, insomnia, rhabdomyolysis (rare) and toxic hepatitis	Start with low dose ^(v) (max: 40 mg)	Consider higher dose ^(vi)
	fluvastatin ⁽ⁱⁱⁱ⁾	20-80 mg qd		Consider higher dose ^(vi)	Consider higher dose ^(vi)
	pravastatin ⁽ⁱⁱⁱ⁾	20-80 mg qd		Consider higher dose ^(vi,vi)	Consider higher dose ^(vi)
	rosuvastatin ^(v)	5-40 mg qd		Start with low dose ^(v) (max: 20 mg)	Start with low dose ^(v)
	simvastatin ⁽ⁱⁱ⁾	10-40 mg qd		Contraindicated	
Intestinal cholesterol absorption inhibitor ^(i,vi)	ezetimibe ^(iv)	10 mg qd	Gastrointestinal symptoms	No known drug-drug interactions with ART	
PCSK9-inhibitor ^(v)	evolocumab	140 mg 2 weekly or 420 mg monthly	Nil	No drug-drug interactions anticipated	

- i** A statin is preferred first-line therapy; different statins have variable intrinsic LDL-c lowering ability
- ii, iii, iv** Target levels for LDL-c, see page 40. In persons where LDL-c targets are difficult to achieve, consult/refer to specialist
Expected range of reductions of LDL-c: **ii** 1.5-2.5 mmol/L (60-100 mg/dL), **iii** 0.8-1.5 mmol/L (35-60 mg/dL), **iv** 0.2-0.5 mmol/L (10-20 mg/dL)
- v, vi** The ARV may **v** inhibit (statin toxicity, ↓ dose) or **vi** induce (=less effect of statin, ↑ dose gradually to achieve expected benefit **ii, iii**) the excretion of the statin
- vii** **Exception:** If used with DRV/r, start with lower dose of pravastatin
- viii** This agent can be used for HIV-positive persons intolerant of statins or added to a statin when LDL reduction is inadequate despite maximally tolerated statin
- ix** Pitavastatin has as yet no morbidity/mortality trial data to support its use but may have advantages of fewer drug-drug interactions, more HDL increase and less adverse glucose effect than other statins
- x** Consider for highest risk individuals inadequately controlled on top statin dose or for statin intolerant individuals

Managing dyslipidemia in HIV/AIDS patients: challenges and solutions

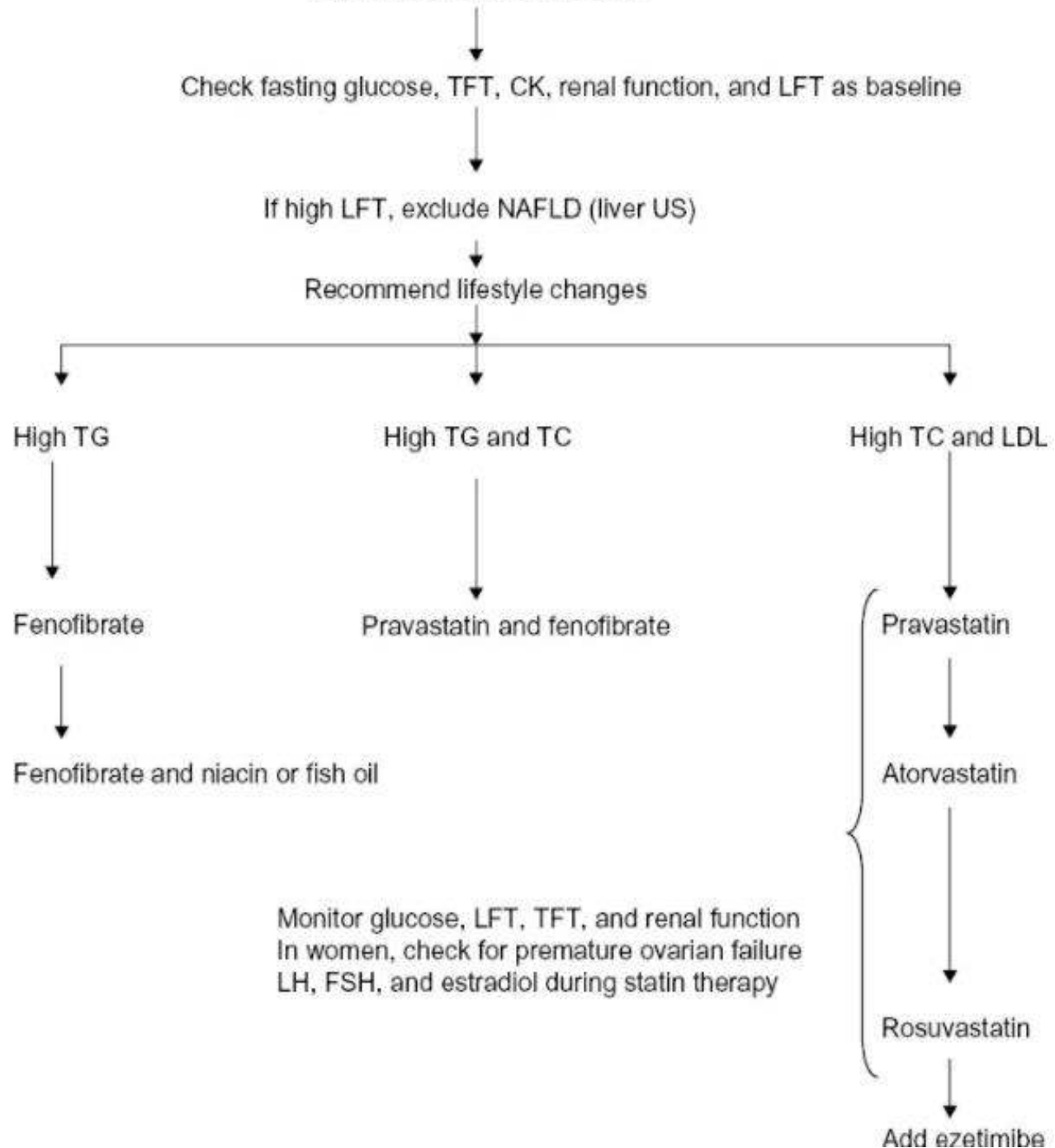
This article was published in the following Dove Press journal:
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17 December 2014
[Number of times this article has been viewed](#)

Nazik Elmalika OS Husain¹
Mohamed H Ahmed²

Abstract: Human immunodeficiency virus (HIV) is a chronic disease associated with dyslipidemia and insulin resistance. In addition, the administration of combination antiretro-





Lipid-lowering medication	Main recommendation	References
Simvastatin and lovastatin	The HIV Medicine Association of the Infectious Disease Society of America and the Adult AIDS Clinical Trial Group recommended that simvastatin and lovastatin should not be given to patients taking PIs or delavirdine. This was also endorsed by the International AIDS Society USA Panel, which recommended that concomitant use of lovastatin or simvastatin with protease inhibitors or HAART is contraindicated.	74–80
Atorvastatin	The HIV Medicine Association of the Infectious Disease Society of America and the Adult AIDS Clinical Trial Group and International AIDS Society USA panel advised that atorvastatin is recommended as a first-line agent for high LDL-C, with a starting dose of atorvastatin 10 mg once daily. Caution is needed when combined with fenofibrate. In certain conditions, administration of atorvastatin (with clarithromycin and lopinavir/ritonavir, delavirdine) was associated with rhabdomyolysis.	15,17,81
Pravastatin	Pravastatin is recommended as first line in the management of HIV dyslipidemia. Interestingly, the combination therapy with fenofibrate and pravastatin for HIV-related dyslipidemia provides substantial improvements in lipid parameters and appears safe. The International AIDS Society USA panel recommended pravastatin and atorvastatin as first-line agents.	82–85
Rosuvastatin	Rosuvastatin is not metabolized by CYP3A4 and is eliminated through feces. Interestingly, rosuvastatin 10 mg/day was more effective than pravastatin 40 mg/day on LDL-C and triglyceride levels in HIV-1-infected patients receiving a boosted protease inhibitor. Interestingly, rosuvastatin and atorvastatin are preferable to pravastatin, due to greater declines in total cholesterol, LDL-C, and non-HDL-C.	86–91
Fluvastatin	The recommendations of the HIV Association of the Infectious Disease Society of America and Adult AIDS Clinical Trials Group, were that fluvastatin was a reasonable alternative to atorvastatin and pravastatin for patients on protease inhibitors.	78,92,93
Ezetimibe	Ezetimibe as monotherapy is an effective and safe lipid-lowering medication in HIV dyslipidemia, and also can be used in those with poor response to statin. In addition, the combination of statin and ezetimibe is also effective and safe lipid lowering medication in HIV-dyslipidaemia.	94–99
Fenofibrate	Fenofibrate is a generally safe and useful agent for the treatment of mixed dyslipidemia and hypertriglyceridemia in people with HIV infection. The combination of pravastatin, fish oil, and niacin with fenofibrate appears to be safe and effective.	85,100–107

Dyslipidemia in HIV patient



















- CD4: 370 h/ mm³, VY: 79 100 k/ml (11.09.2002)
- Trigliserid: 1168 mg/dl, Kolesterol: 431 mg/dl, LDL: 119 mg/dl, HDL: 48 mg/dl
- CD4: 380 h/ mm³, VY: 11 000 k/ml (15.05.2003)
- Yoğun ankziyete: Mirtazapin (Remeron[®]), düzensiz kullanım
- GİS intoleransı ve artan hiperlipemi nedeniyle RTV kesildi

Empty symbols indicate that the combination has not been assessed (either by study or within the product label) and an interaction has been predicted based on the metabolic profiles of the drugs.

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n/a	Data not available



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Antidepressants	Ritonavir	Nevirapine	Didanosine (ddl)	Stavudine (d4T)
Mirtazapine				
Antiretrovirals (NNRTIs)	Ritonavir	Nevirapine	Didanosine (ddl)	Stavudine (d4T)
Nevirapine		n/a		
Antiretrovirals (Nucleoside/tide Analogues)	Ritonavir	Nevirapine	Didanosine (ddl)	Stavudine (d4T)
Didanosine (ddl)			n/a	
Stavudine (d4T)				n/a
Antiretrovirals (Protease Inhibitors)	Ritonavir	Nevirapine	Didanosine (ddl)	Stavudine (d4T)
Ritonavir	n/a			

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- Gemfibrozil (lopid[®]) düzensiz kullanım, yaşam tarzı önerileri
- CD4: 370 h/ mm³, VY: 17 000 k/ml (16.01.2004)
- CD4: 392 h/ mm³ , VY: 13 300 k/ml (23.05.2005)
- CD4: 370 h/ mm³, VY: 37 000 k/ml (17.01.2006)
- CD4: 281 k/ml, VY: 17 000 k/ml (20.09.2007)



3. 03.04.2008'de CD4: 344 h/ mm³, VY: 35 400 k/ml. Tedavi nasıl olmalı?

- a. d4T + ddi + NVP'e devam ederim
- b. NVP'i keser, LPV/r eklerim
- c. Sadece NVP kullanırım
- d. TDF + FTC + LPV/r'e deęiřtiririm

- CD4: 344 h/ mm³, VY: 35 400 k/ml (03.04.2008)
- **Tedavi: TDF+FTC 1x1+ LPV/r 2x2** (Direnç testi ile)
- CD4: 371 h/ mm³, VY: ≤ 50 k/ml (31.07.2008)
- Bufalo hörgücü, fasiyal lipoatrofi





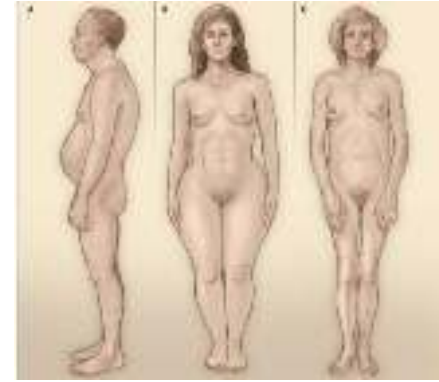
4. Bu durumda yaklaşımınız ne olur?

- a. Tüm ilaçları keserim
- b. Tedaviye devam ederim
- c. LPV'i tekrar NVP'e deęiřtiririm
- d. Tedaviye devam eder, plastik cerrahi yönünden danıřırım

- Plastik cerrahi (HÜTF)

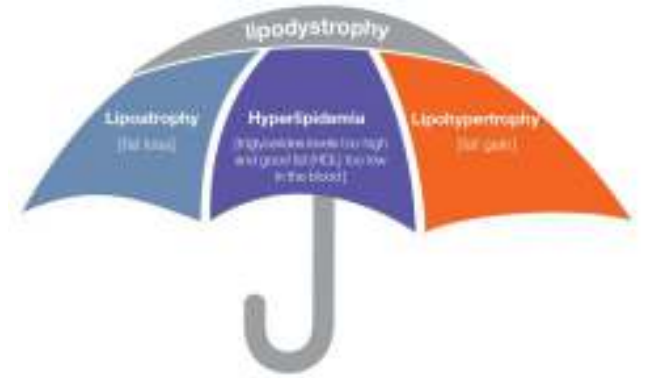
HIV ilişkili lipodistrofi

- İlk kez 1998’de tanımlandı
- 3 tip
 1. Lipohipertrofi
 - Karın içi organların çevresinde
 - Boyun arkasında (Buffalo hörgücü)
 - Göğüslerde
 - Cilt altında: Lipoma
 2. Lipoatrofi
 - Kol ve bacaklarda
 - Kalçalarda
 - Yüzde
 3. Mikst



HIV ilişkili lipodistrofi

- NRTi; ddC>ddl>d4T>AZT>3TC=ABC=TDF
- Yeni ilaçlarla ciddi lipoatrofide azalma, ancak lipohipertrofi devam
- Tanı
 - Klinik görünüm
 - Görüntüleme yöntemleri
 - En uygunu; ART öncesi fotoğraf çekilmesi ve/veya boy, kilo, kollar, bacaklar, bel, kalça ve boyun çevresi ölçümü



AIDS erime lipoatrofi deęil

	Yaę kaybı	Kilo kaybı ve diyare	CD4 sayısı	HIV kontrolü	Ölüm riski ile birliktelik	Görünüm etkilenme
AIDS erime	Evet	Evet	< 50	Hayır	Evet	Evet
Lipoatrofi (yaę kaybı)	Evet	Hayır	> 200	Evet	Hayır	Evet

Lipoatrofi

Yan etki	Yan etki öncesinde kullanılan ARV	Yan etki sonrasında ARV değişimi	Öneriler
Lipoatrofi Ekstremitelerde, yüz ve yanaklarda subkutan yağ kaybı	d4T, ZDV	TDF, TAF veya ABC	Periferik lipoatrofi eski timidin analoglarının (d4T ve ZDV) kullanımına bağlıdır. ARV'lerin değişimi lipoatrofinin kötüleşmesini önler ancak düzelme yavaştır ve tamamen düzelmez

Lipohipertrofi

Yan etki	Yan etki öncesinde kullanılan ARV	Yan etki sonrasında ARV değişimi	Öneriler
Lipohipertrofi	Özellikle eski PI bazlı rejimlerde (IDV vb.) organ, gövde, dorsoservikal ve göğüs yağlarında artış gözlenmesi	Diğer önerilen tedavi rejimlerine değişimin kilo veya visseral yağ artışını düzettiğine dair klinik kanıt yok	

Lipodistrofi



Lipodystrophy: Prevention and Management

Lipoatrophy	Lipohypertrophy ⁽¹⁾
<p>Prevention</p> <ul style="list-style-type: none"> • Avoid d4T and ZDV or pre-emptively switch away from them. No evidence of benefit by switching other antiretrovirals. • Avoid excessive weight loss due to diet and exercise. • In ART-naïve persons, limb fat usually increases with initiation of ART not containing d4T or ZDV, reflecting “return-to-health” type of response. 	<p>Prevention</p> <ul style="list-style-type: none"> • No proven strategy • No current antiretroviral drug has been specifically associated with increased visceral adiposity • An excess of visceral fat has been reported in HIV vs. non-HIV non-obese persons for the same body mass index • Weight reduction or avoidance of weight gain may decrease visceral fat • Avoid corticosteroids with RTV or COBI-boosted drugs as it may cause Cushing syndrome or adrenal insufficiency (see Drug-Drug Interactions between Corticosteroids and ARVs)
<p>Management</p> <ul style="list-style-type: none"> • Modification of ART: Switch away from d4T or ZDV <ul style="list-style-type: none"> — Increase in total limb fat ~400-500 g/year (in the first two years) — Risk of toxicity from new drug, see Adverse Effects of ARVs & Drug Classes • Surgical intervention <ul style="list-style-type: none"> — Offered for cosmetic relief of (facial) lipoatrophy only. 	<p>Management</p> <ul style="list-style-type: none"> • Diet and exercise may reduce visceral adiposity; <ul style="list-style-type: none"> — Limited data, but not consistently associated with improvement in insulin sensitivity and blood lipids — No prospective trials in HIV-positive persons to definitely indicate degree of diet and/or exercise needed to maintain reduction in visceral fat • Pharmacological interventions to treat lipohypertrophy have not been proven to provide long-term effects and may introduce new complications; • Growth hormone (not approved for this indication in Europe) <ul style="list-style-type: none"> — Decreases visceral adipose tissue — May worsen insulin resistance • Tesamorelin (not approved in Europe; approved for this indication by FDA)⁽²⁾ • Metformin (not approved for this indication in Europe) <ul style="list-style-type: none"> — Decreases visceral adipose tissue in insulin resistant persons — May worsen subcutaneous lipoatrophy • Surgical therapy can be considered for localised lipomas/buffalo humps <ul style="list-style-type: none"> — Duration of effect variable

- Trigliserid: 1042 mg/dl, Kolesterol: 273 mg/dl, LDL: 152 mg/dl, HDL: 40 mg/dl (31.07.2008)
- Kardiyoloji: **Fenofibrat** 250 mg (Lipofen®)
- **Tedavi: TDF+FTC 1x1+ Efavirenz 1x1(1x600 mg)**
- CD4: 447 h/ mm³ , VY: ≤ 50 k/ml (15.06.2009)



- Trigliserid: 583 mg/dl, Kolesterol: 253 mg/dl, LDL: 172 mg/dl, HDL: 46 mg/dl
- CD4: 352 h/ mm³, VY: 24 400 k/ml (08.12.2010)
- Boyundaki **lipohipertrofide** artış, **jinekomasti**
- **Tedavi: TDF+FTC 1x1+ LPV/r 2x2**
- CD4: 450 h/ mm³, VY: ≤ 50 k/ml (22.09.2011)



- CD4: 541 h/ mm³, VY: ≤ 50 k/ml (17.10.2012)
- CD4: 731 h/ mm³, VY: ≤ 50 k/ml (02.05.2013)

- Boyundaki **lipohipertrofiye artış**











- **Tedavi: TDF+FTC 1x1+ RAL 2x1 (2x400 mg)**

- CD4: 900 h/ mm³, VY: ≤ 50 k/ml (28.11.2013)
- Trigliserid: 499 mg/dl, Kolesterol: 210 mg/dl, LDL: 118 mg/dl, HDL: 15 mg/dl
- **Plastik cerrahi:** Boyuna liposuction, yüze yağ enjeksiyonu (HÜTF)
- CD4: 897 h/ mm³, VY: 68 k/ml (23.01.2014)

Key to symbols:













Clicking on a solid symbol within a table will give further information on the interaction.

Empty symbols indicate that the combination has not been assessed (either by study or within the product label) and an interaction has been predicted based on the metabolic profiles of the drugs.

 / 	These drugs should not be coadministered
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n/a	Data not available



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Antidepressants	Emtricitabine (FTC)	Tenofovir	Raltegravir
Mirtazapine			
Antiretrovirals (Integrase Inhibitors)	Emtricitabine (FTC)	Tenofovir	Raltegravir
Raltegravir			n/a
Antiretrovirals (Nucleoside/tide Analogues)	Emtricitabine (FTC)	Tenofovir	Raltegravir
Emtricitabine (FTC)	n/a		
Tenofovir		n/a	
Lipid Lowering Agents	Emtricitabine (FTC)	Tenofovir	Raltegravir
Fenofibrate			

Major Sponsors



Other Sponsors

- CD4: 800 h/ mm³, VY: ≤ 50 k/ml (24.07.2014)
- Triglycerid: 335 mg/dl, Kolesterol: 219 mg/dl, LDL: 146 mg/dl, HDL: 48 mg/dl

HIV/AIDS and lipodystrophy: implications for clinical management in resource-limited settings.

Finkelstein JL¹, Gala P², Rochford R³, Glesby MJ², Mehta S⁴.

- MEDLINE veritabanında 31 mart 2014'e kadar düşük, düşük-orta ve orta-üst gelirli ülkelerde HIV ve lipoatrofi, lipohipertrofi veya miks sendrom hakkında
- 90 çalışma (6'sı düşük, 8'i düşük-orta gelirli);
36 Latin Amerika, 28 Afrika, 26 Asya
- Lipodistrofi prevalansı, risk faktörleri ve ART yan etkileri
- Lipodistrofi sıklıkla antropometri (boy, kilo, VKİ, üst kol, bel, kalça çevresi, bel-kalça oranı)
- Genellikle tedavinin ilk 6 ayında, özellikle stavudin kullanımı
- Lipodistrofi ile kardiyometabolik komplikasyonlarda artış
- Lipodistrofi, kaynağı kısıtlı ülkelerde yaygındır ve metabolik hastalık, yaşam kalitesi ve uyum riskinin önemli ipucu

Tarih	Viral yük (kopya/ml)	CD4 (hücre/mm ³)	Trigliserid (mg/dl)	Kolesterol (mg/dl)	LDL (mg/dl)	HDL (mg/dl)	ART
18.02.1998	300 000	250	1798	475	110	52	ZDV+3TC+IDV
13.05.1998	≤ 50	397	1423	475	112	50	ZDV+3TC+IDV
05.03.1999	1000	435	1268	238	115	51	ZDV+3TC+IDV
04.10.2000	125 000	345	450	220	110	48	ZDV+3TC+IDV
11.09.2001	70 000	345	814 (Gemfibrozil)	320	118	43	d4T+ddI+ NVP+RTV
11.09.2002	79 100	370	1168	431	119	48	d4T+ddI+ NVP+RTV
15.05.2003	11 000	380	699	366	240	20	d4T+ddI+ NVP

Tarih	Viral yük (kopya/ml)	CD4 (hücre/mm ³)	Trigliserid (mg/dl)	Kolesterol (mg/dl)	LDL (mg/dl)	HDL (mg/dl)	ART
16.01.2004	17 000	370	439	209	105	32	d4T+ddI+ NVP
23.05.2005	13 300	392	339	196	102	35	d4T+ddI+ NVP
17.01.2006	370 000	370	514	240	102	35	d4T+ddI+ NVP
20.09.2007	17 000	281	294	165	105	42	d4T+ddI+ NVP
03.04.2008	35 400	344	290	160	107	43	TDF+FTC+LPV/r
31.07.2008	≤ 50	371	1042	273	152	40	TDF+FTC+EFV (Fenofirat, plastik cerrahi)
15.06.2009	≤ 50	447	583	253	134	46	TDF+FTC+EFV

Tarih	Viral yük (kopya/ml)	CD4 (hücre/mm ³)	Trigliserid (mg/dl)	Kolesterol (mg/dl)	LDL (mg/dl)	HDL (mg/dl)	ART
08.12.2010	24 400	352	1688	391	66	41	TDF+FTC+LPV/r
22.09.2011	≤ 50	450	401	207	116	39	TDF+FTC+LPV/r
17.10.2012	≤ 50	541	461	207	116	38	TDF+FTC+LPV/r
02.05.2013	≤ 50	731	1253	392	135	43	TDF+FTC+RAL
28.11.2013	≤ 50	900	499	210	118	15	TDF+FTC+RAL (Plastik cerrahi)
23.01.2014	≤ 50	897	1999	412	122	19	TDF+FTC+RAL
24.07.2015	≤ 50	800	335	219	146	48	TDF+FTC+RAL
18.11.2016	≤ 50	828	263	236	169	50	TDF+FTC+RAL
21.09.2017	≤ 50	759	408	236	152	44	TDF+FTC+RAL

Sonuç

- Gelişmiş ART ile daha uzun ve kaliteli yaşam
- Ancak yan etki ve ilaç ilaç etkileşimi önemli sorun
- Tedavi başarısı, bu sorunların iyi yönetilmesine bağlı



Teşekkür ederim