
# Psoriasis tedavisinde sorunlar

Prof.Dr.Emel Bülbül Başkan

# Psoriasis hastalarının tedavi tercihlerini ne belirler?

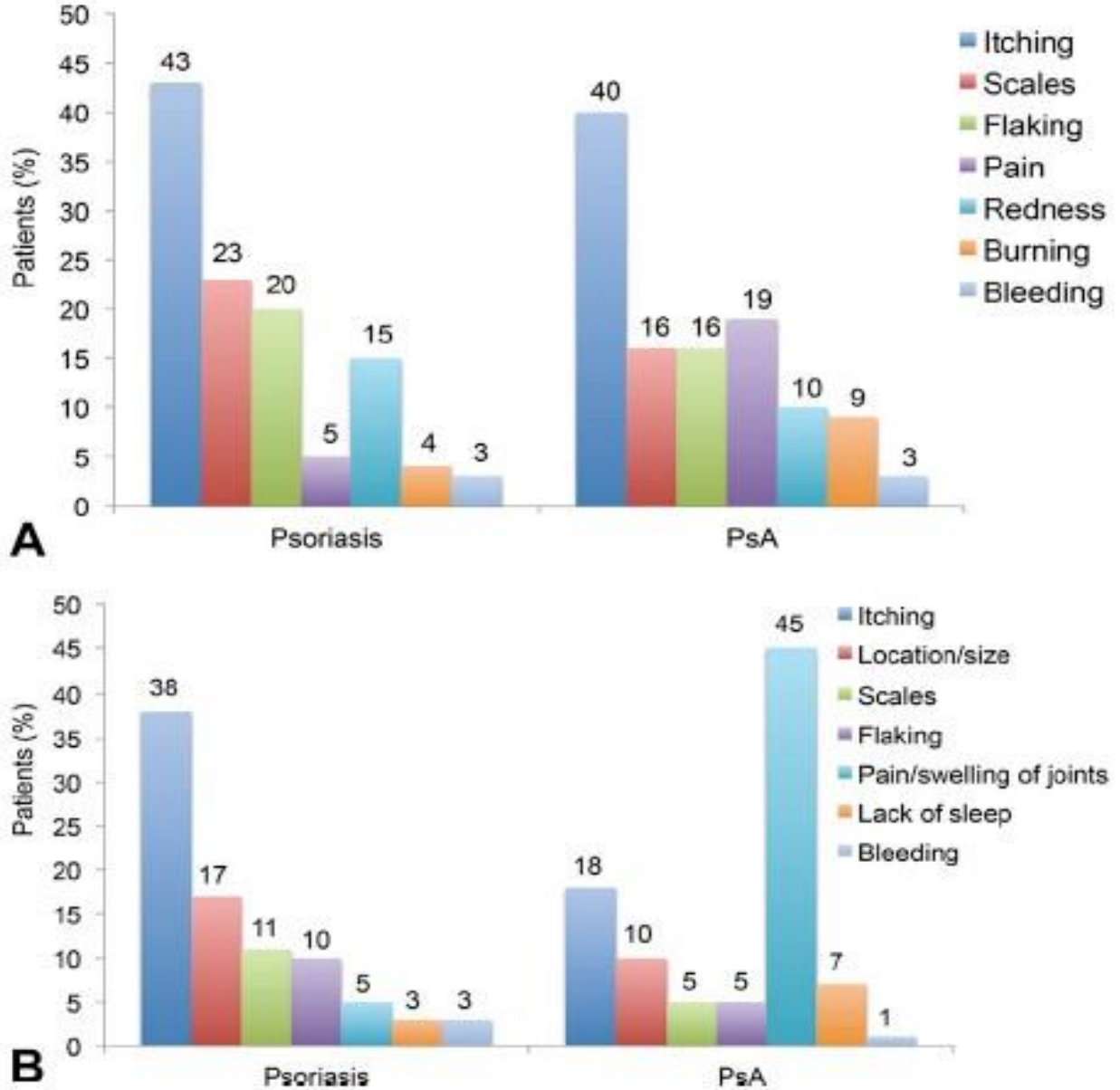
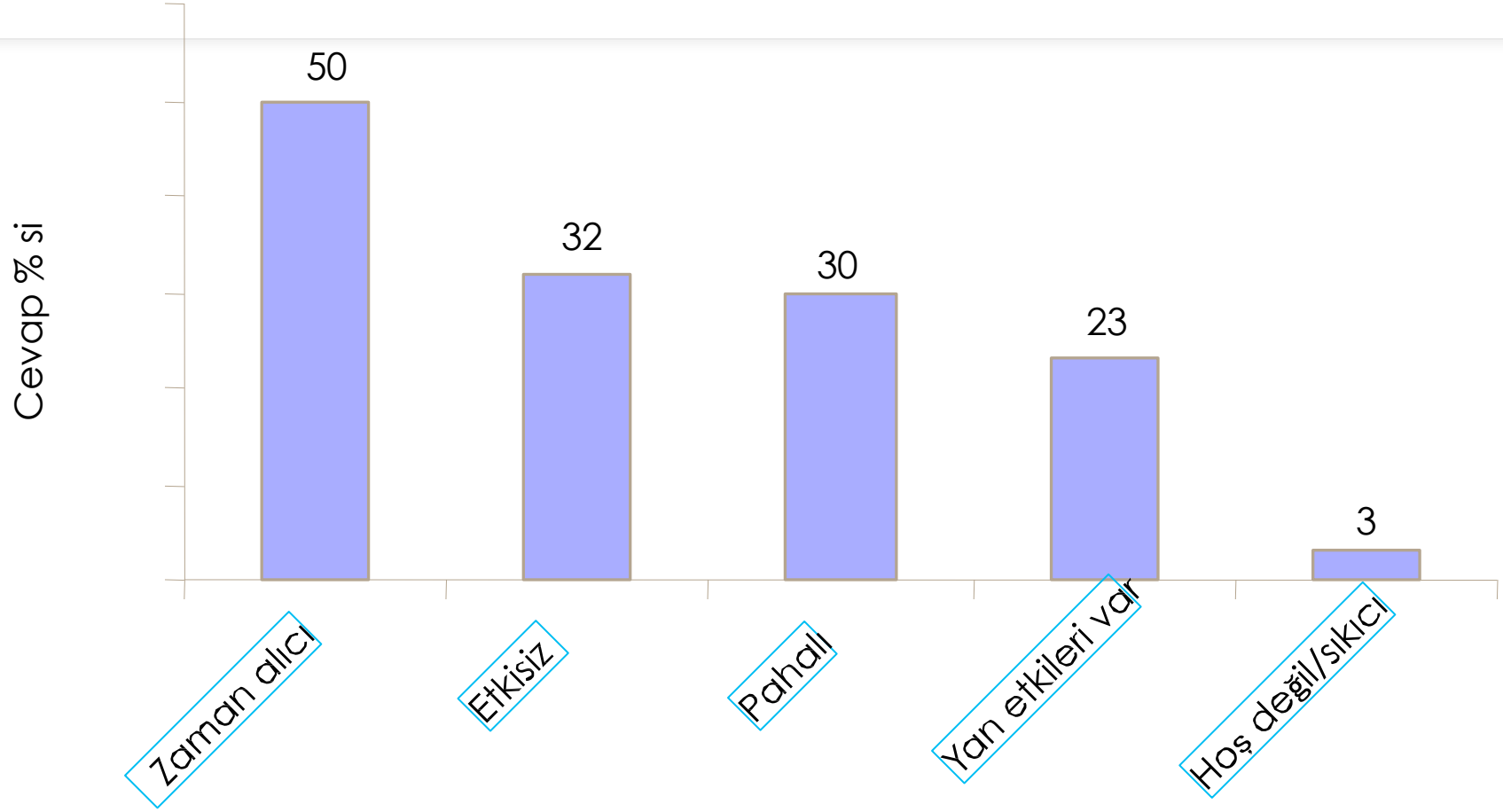



**Fig 3.** (**A**) The most bothersome skin symptoms and (**B**) the most important factors contributing to disease severity.

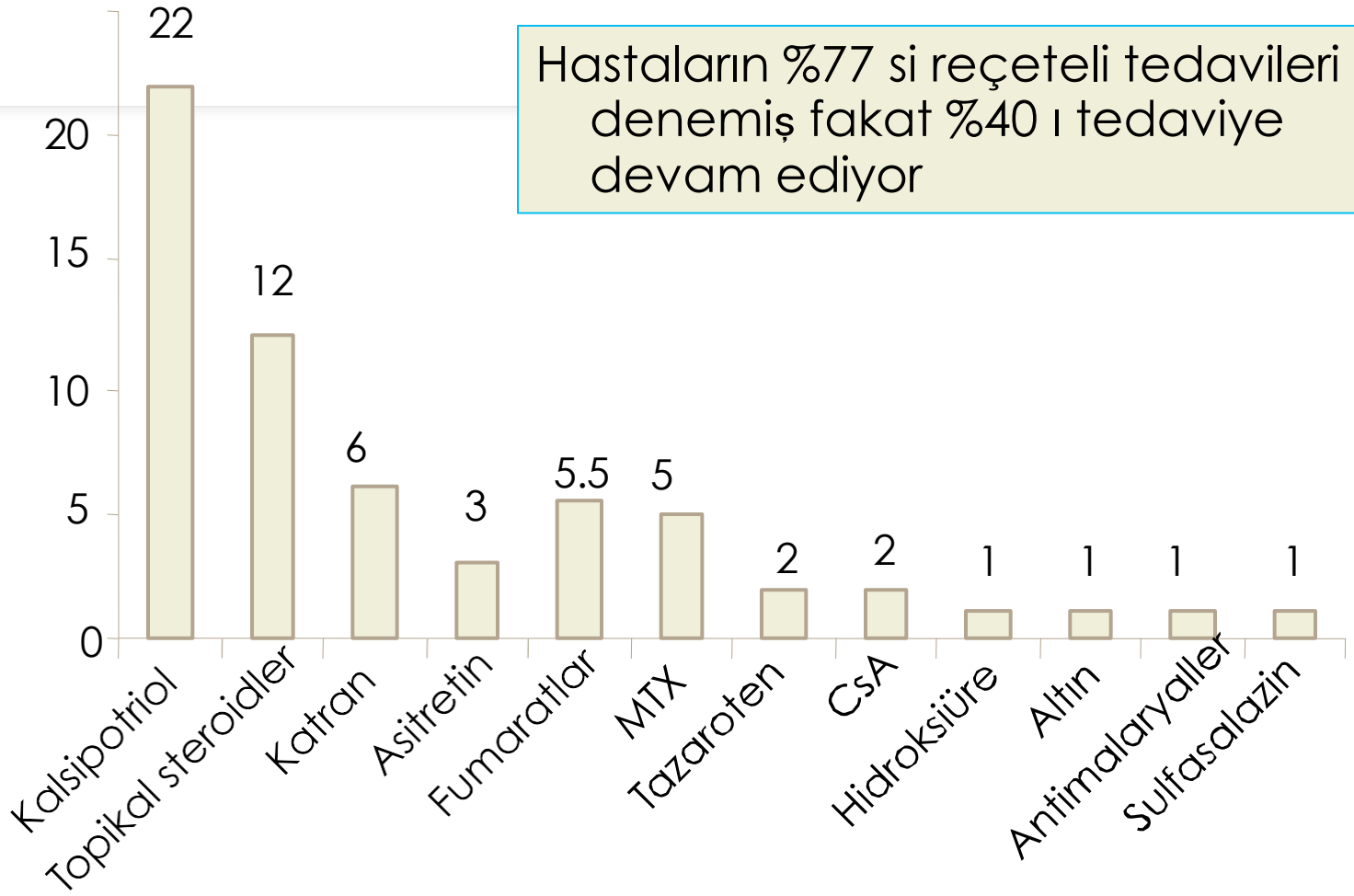
J Am Acad Dermatol 2014;70:871-81

# Tedavi ile ilgili problemler




Salonen S-H on behalf of the EUROPSO Patient Survey Study Group. The EUROPSO Psoriasis Patient Study: Treatment history an satisfaction reported by 17,990 members of European psoriasis patient associations.

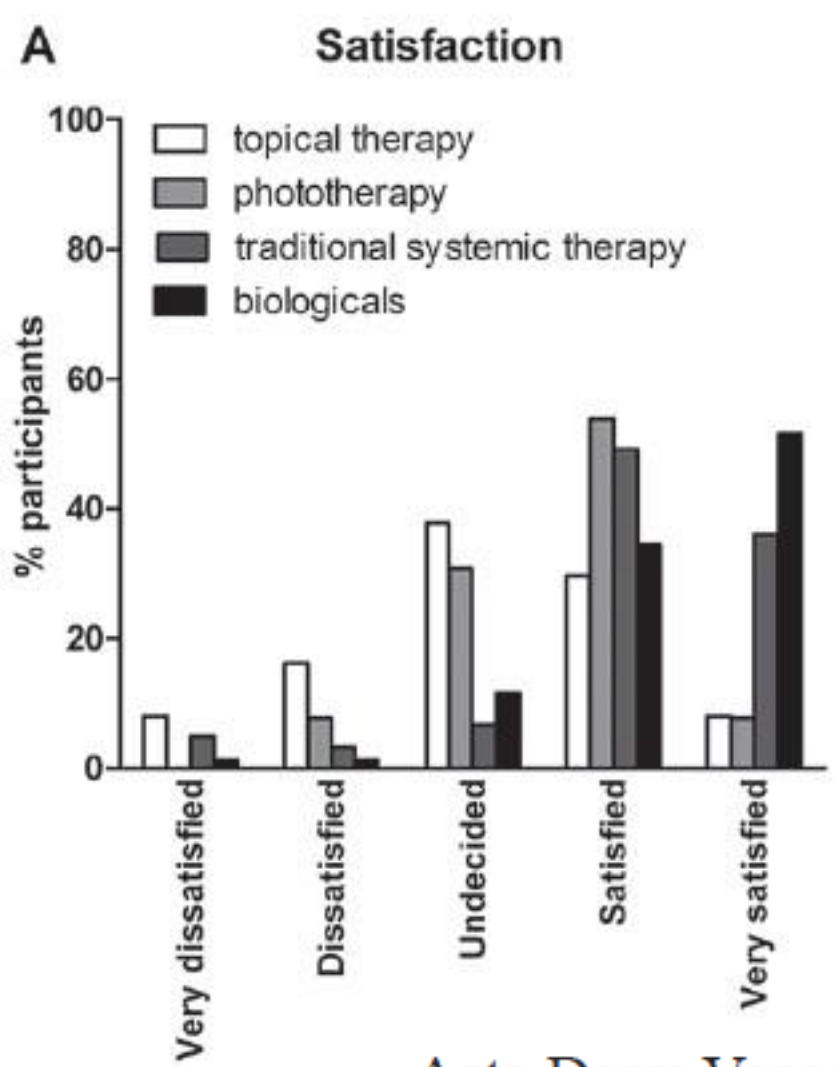
# Reçetelendirilen ilaçların kullanımı

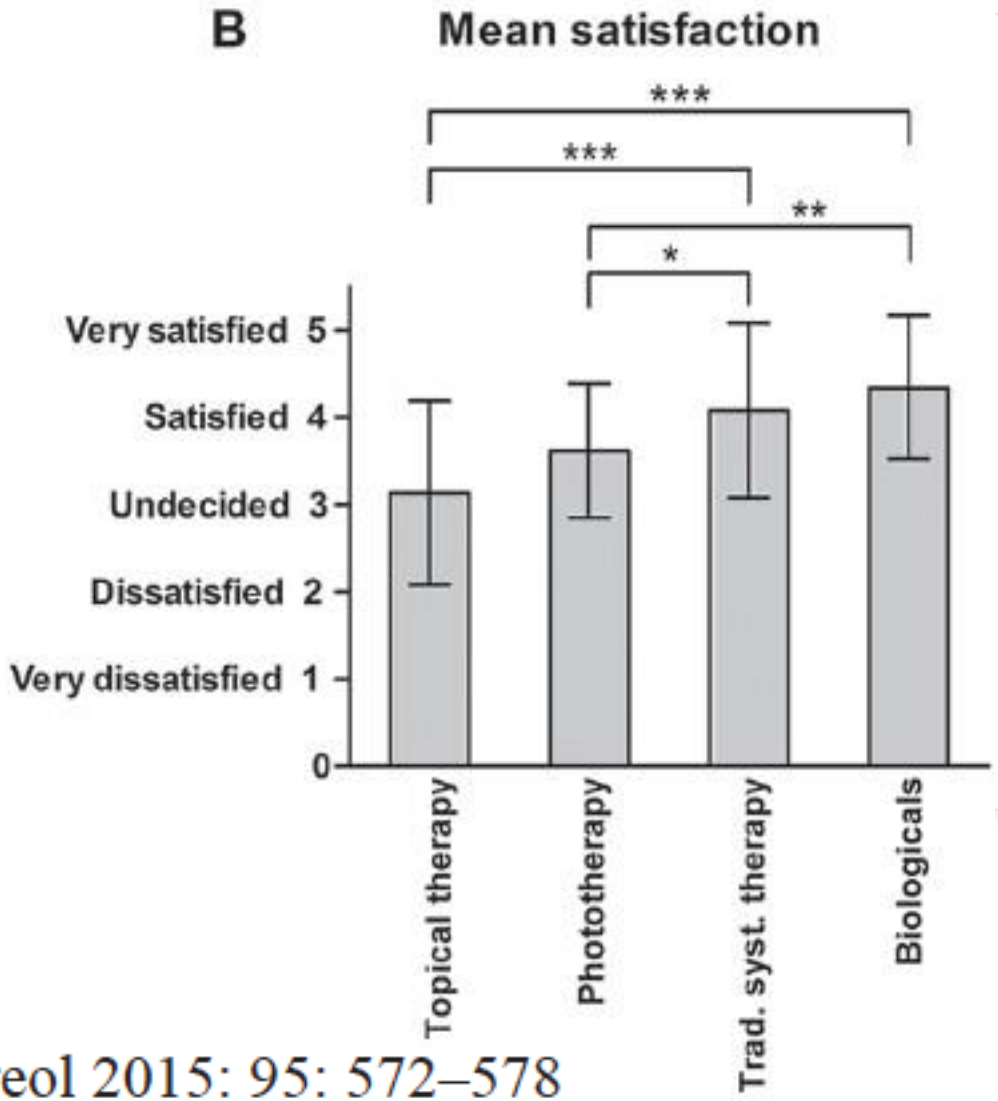



Hastaların %77 si reçeteli tedavileri denemiş fakat %40 ı tedaviye devam ediyor

The EUROPSO Psoriasis Patient Study: Treatment history an satisfaction reported by 17,990 members of European psoriasis patient associations. Salonen S-H on behalf of the EUROPSO Patient Survey Study Group.

# TEDAVIDEN MEMNUNIYET




Acta Derm Venereol 2015: 95: 572–578

Archives of Dermatological Research (2018) 310:271–319
https://doi.org/10.1007/s00403-018-1808-x

ORIGINAL PAPER

# Treatment preferences and treatment satisfaction among psoriasis patients: a systematic review

Aleksandra G. Florek[1] · Catherine J. Wang[2] · April W. Armstrong[2,3]

Received: 17 September 2017 / Revised: 21 December 2017 / Accepted: 12 January 2018 / Published online: 13 February 2018


## Abstract

A critical gap exists in determining treatment preferences and treatment satisfaction from patient perspectives, which is paramount to achieving therapeutic success. The objective of this systematic review is to determine factors influencing treatment preferences and treatment satisfaction among psoriasis patients. PubMed, EMBASE, and Web of Science databases were searched between November 1, 2010, and December 1, 2017. Observational and interventional research studies published in the English language that discussed patient preferences and patient satisfaction in the treatment of psoriasis were reviewed and synthesized. We utilized data on treatment preferences and treatment satisfaction from 35,388 psoriasis patients based on 60 articles from the years 2010 to 2017. Treatment preferences were heterogeneous and changed over time among psoriasis patients. Across all treatment modalities, the most important treatment attributes were treatment location, probability of improvement, and delivery method. For biologics specifically, the most important attributes were risk of adverse events and probability of treatment benefit. Factors that influenced patients' preferences for certain treatments included age, sex, comorbidities, disease duration, and prior treatments. Notably, some psoriasis patients placed higher importance on a treatment's process attributes (e.g., access and delivery) over its outcome attributes (e.g., efficacy). Overall, patient satisfaction with existing therapies remains modest; however, those treated with biologic agents exhibited highest treatment satisfaction over oral therapy, phototherapy, and topical therapy.

**Table 1** Conceptual framework of treatment attributes

| Treatment outcome attribute | Example | Selected literature findings |
|---|---|---|
| Probability of treatment benefit | Chance that patient will experience improvement with treatment, e.g., 90, 75, 50% | Younger patients were more interested in probability of treatment benefit than older patients [31, 32, 56, 70] |
| Magnitude of treatment benefit | Difference between a patient's baseline severity and clearance, e.g., PASI 75 and PASI 50 | Patients receiving older systemic treatment for psoriasis attached greater importance towards magnitude of treatment benefit [57] |
| Time until treatment benefit | Length of time until patient experiences improvement, e.g., 1, 2 days, 1 week | Patients preferred treatments with faster onset of improvement (time until treatment benefit) [67] |
| Duration of treatment benefit | Length of time patient experiences improvement after treatment completion, e.g., 1, 2, and 6 months | Patients with longer disease duration attached greater importance to duration of treatment benefit [57] |
| Probability of side effects | Chance that patients will experience side effects with treatment, e.g., 10, 20, and 50% | Patients with cardiovascular disease were highly concerned about the probability of side effects [54, 59] |
| Reversibility of side effects | Probability that treatment side effects will completely disappear, e.g., 100, 75, and 50% | Patient rated reversibility of side effects as one of the least important attributes [56] |
| **Treatment process attribute** | **Example** | **Selected literature findings** |
| Location | Location where treatment will take place, e.g., patient's home, hospital, physician's office, and outpatient clinic | Location was the most important treatment attribute [56] |
| Frequency | How often treatment occurs, e.g., twice daily, once daily, biweekly, and monthly | Women were more interested in treatment frequency than men [32] |
| Duration | How long it takes to complete the treatment, e.g., 5 min or half an hour | Patients on phototherapy and topical therapy were more interested in treatment duration [31] |
| Route of administration | How treatment will be administered, e.g., IV, subcutaneous injection, and oral | Patients preferred quarterly subcutaneous or monthly IV routes of administration over daily oral administration [67] |
| Formulation | Form treatment is presented as, e.g., gel, ointment, foam, and cream | Patients preferred gel formulation over ointment for treatment of hairy scalp [27] |
| Cost | How much patient pays for treatment, e.g., nothing, $100/month, and $200/month | Cost was more important to females and to older patients [67] |


STEP 1
Seek your patient's participation.
STEP 2
Help your patient explore & compare treatment options.
STEP 3
Assess your patient's values and preferences.
STEP 4
Reach a decision with your patient.
STEP 5
Evaluate your patient's decision.

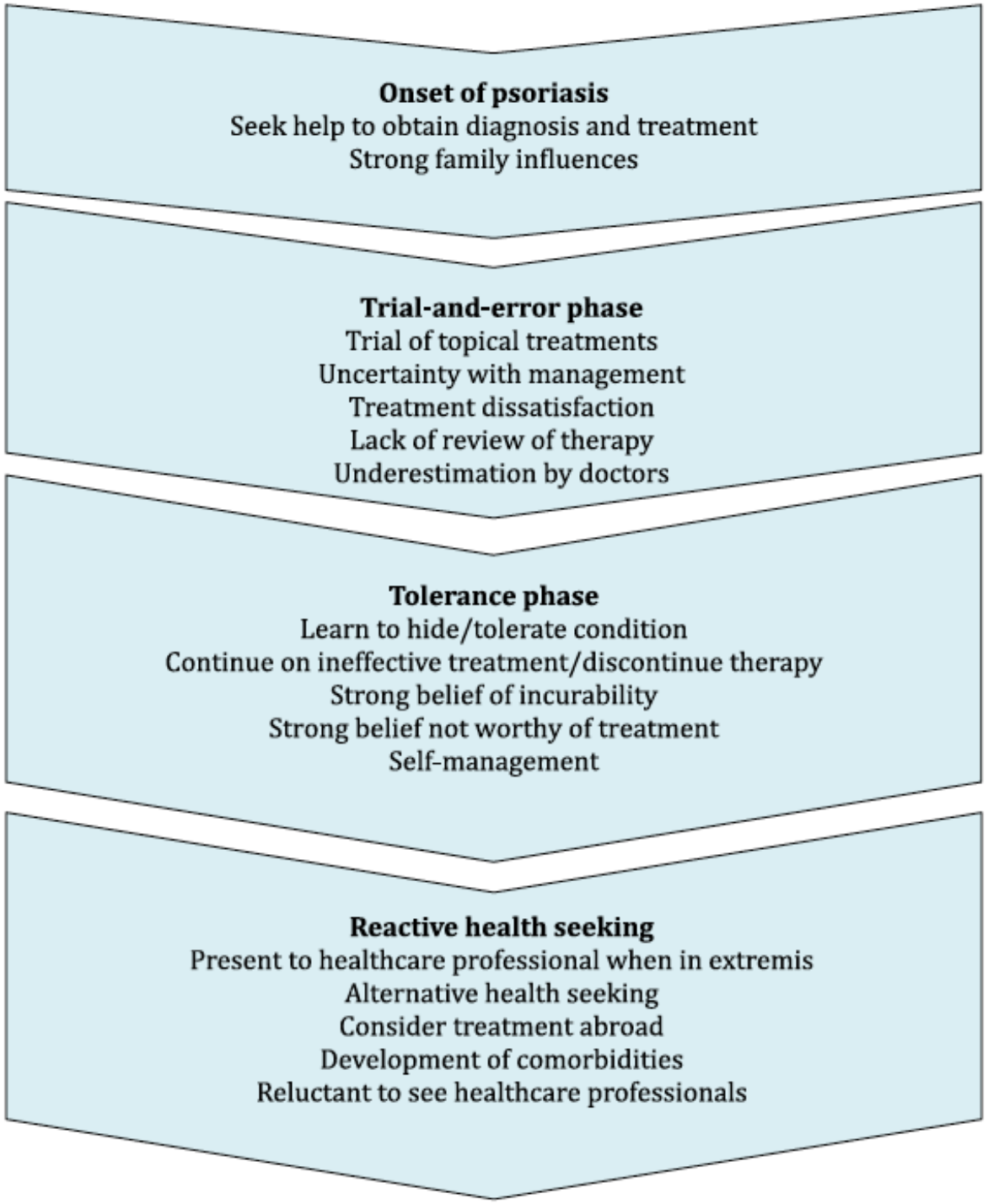
QUALITATIVE AND OUTCOMES RESEARCH

BJD
British Journal of Dermatology

# An exploratory study using framework analysis to investigate health-seeking behaviour in patients with psoriasis

J.K. Simpson,[1] M. Wilson,[2] A.A. Ahmed,[2] A. Mizara,[1] A. Clarke[2] and S.R. McBride[1]

*Royal Free London NHS Foundation Trust, Departments of [1]Dermatology and [2]Clinical Psychology, London, U.K.*



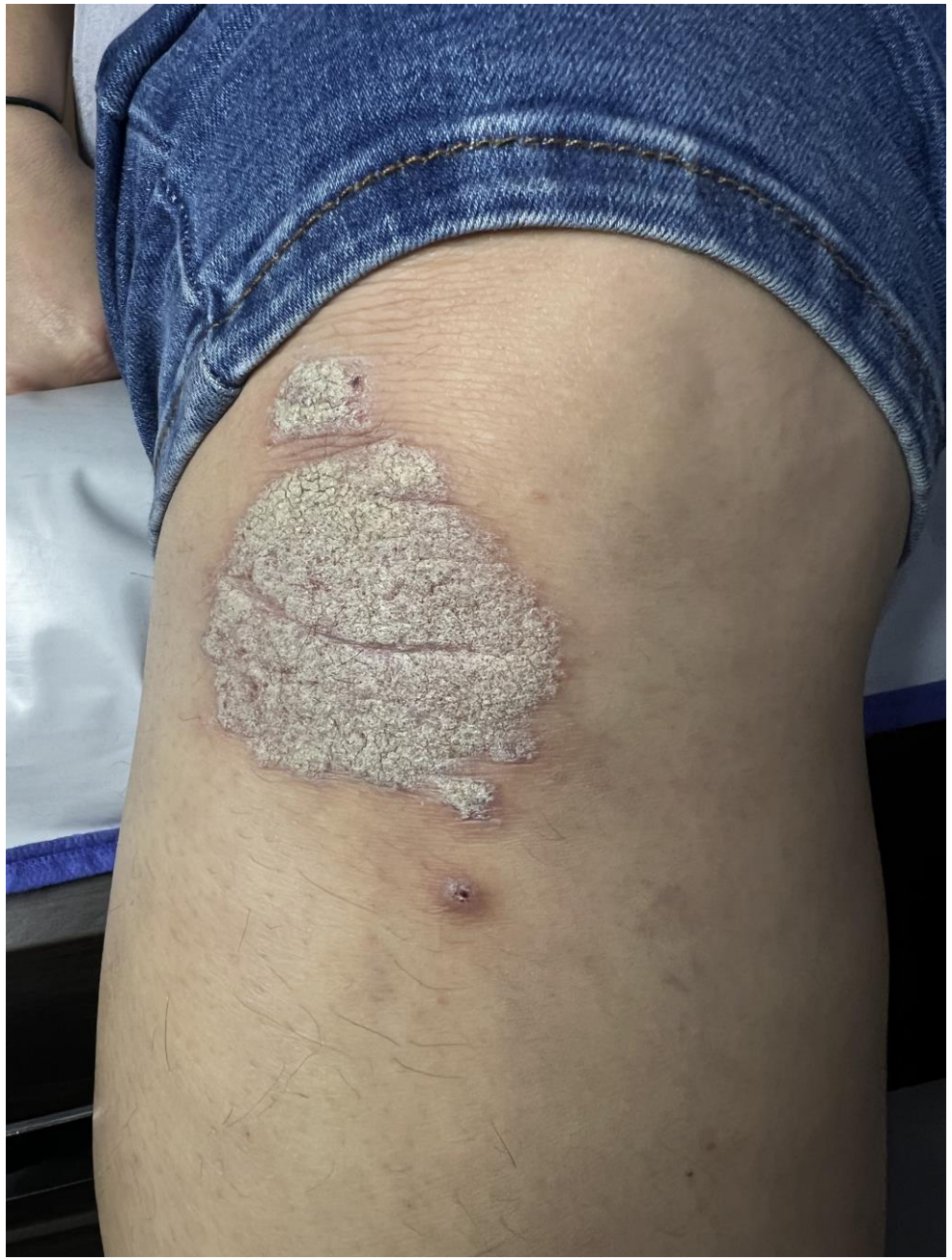

British Journal of Dermatology (2017) 177, pp742–750

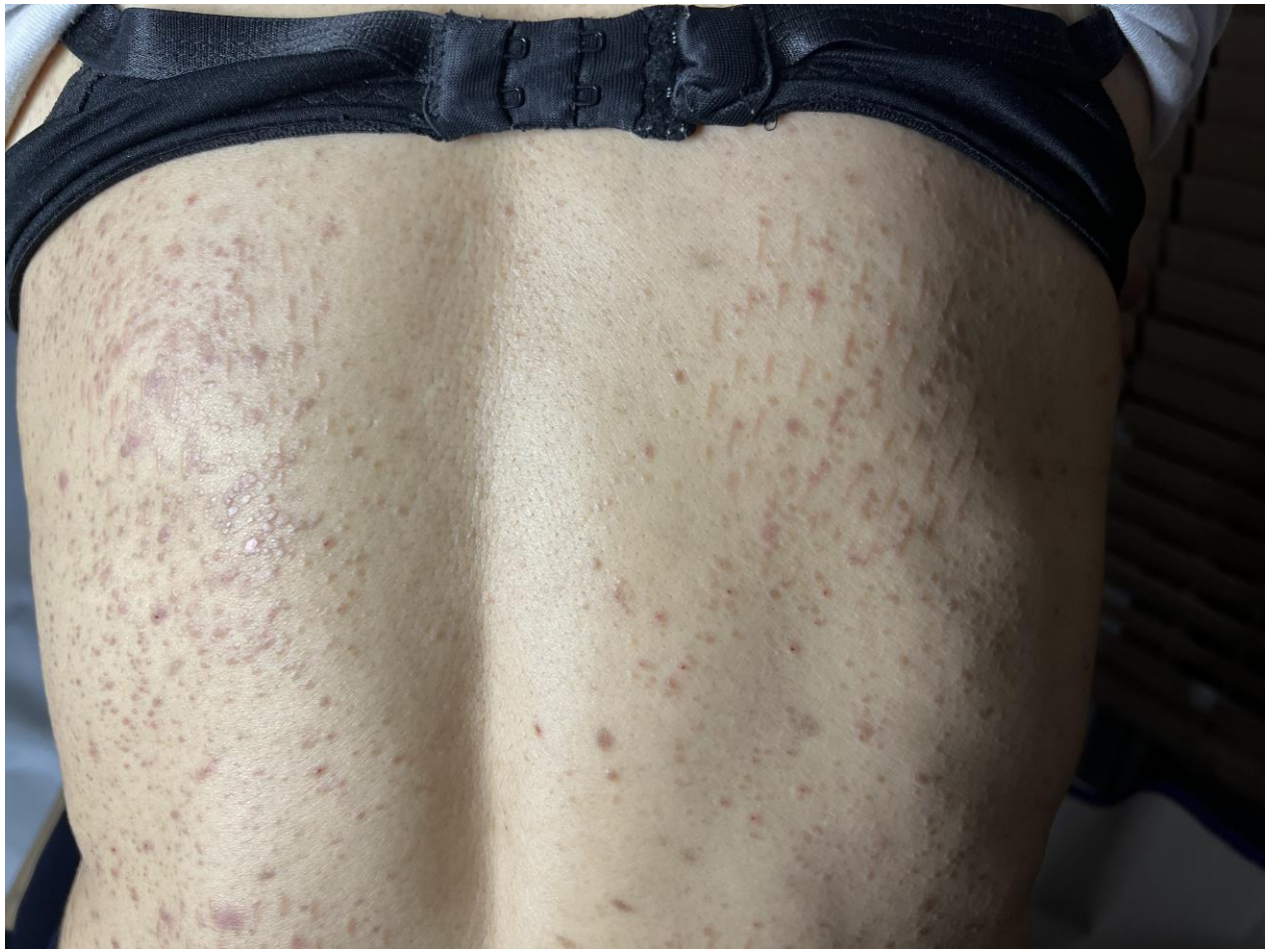

ARAP ZAMKI NEDİR?
SEDEF HASTALIĞINA
ARAP ZAMKI TEDAVİSİ!


OZON İLE
SEDEF
TEDAVİSİ
UZM.DR.MERYEM ÖZBAŞ GÜNAY


Türkiye'nin en saygın Sedef hastalığı ve Egzama kliniklerinden biriyiz. Yan etkisi olan kortizon, asitretin ve kemoterapik ilaçlar kullanmıyoruz. Cilt bakım süresi ortalama 4 aydır. 2 Yıl da takip süremiz vardır. Dünyanın her yerinden hasta kabul edilmektedir.
DR. MEHMET İLTEBER
BAHADIR
0530 225 03 25

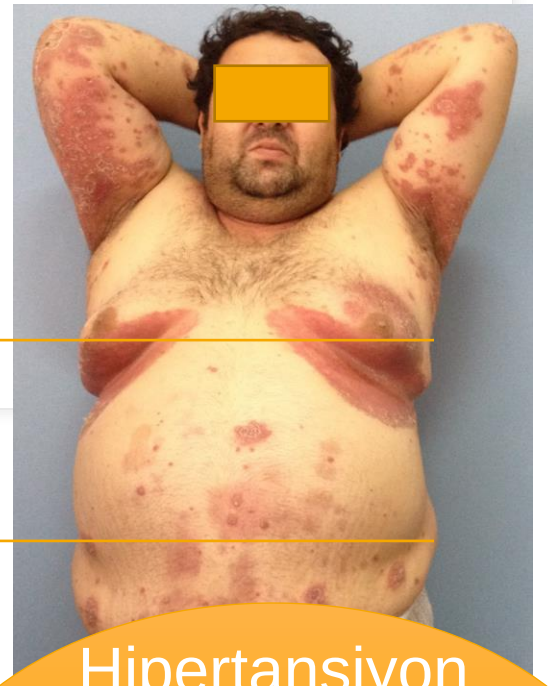

Sedef Hastalığına
Mucize Tedavi
Prof. İbrahim Saraçoğlu





# Tedavi seçiminde hekim tercihlerini ne belirler?

# Olgu: İ.C.O.



55 yaşında turizmci

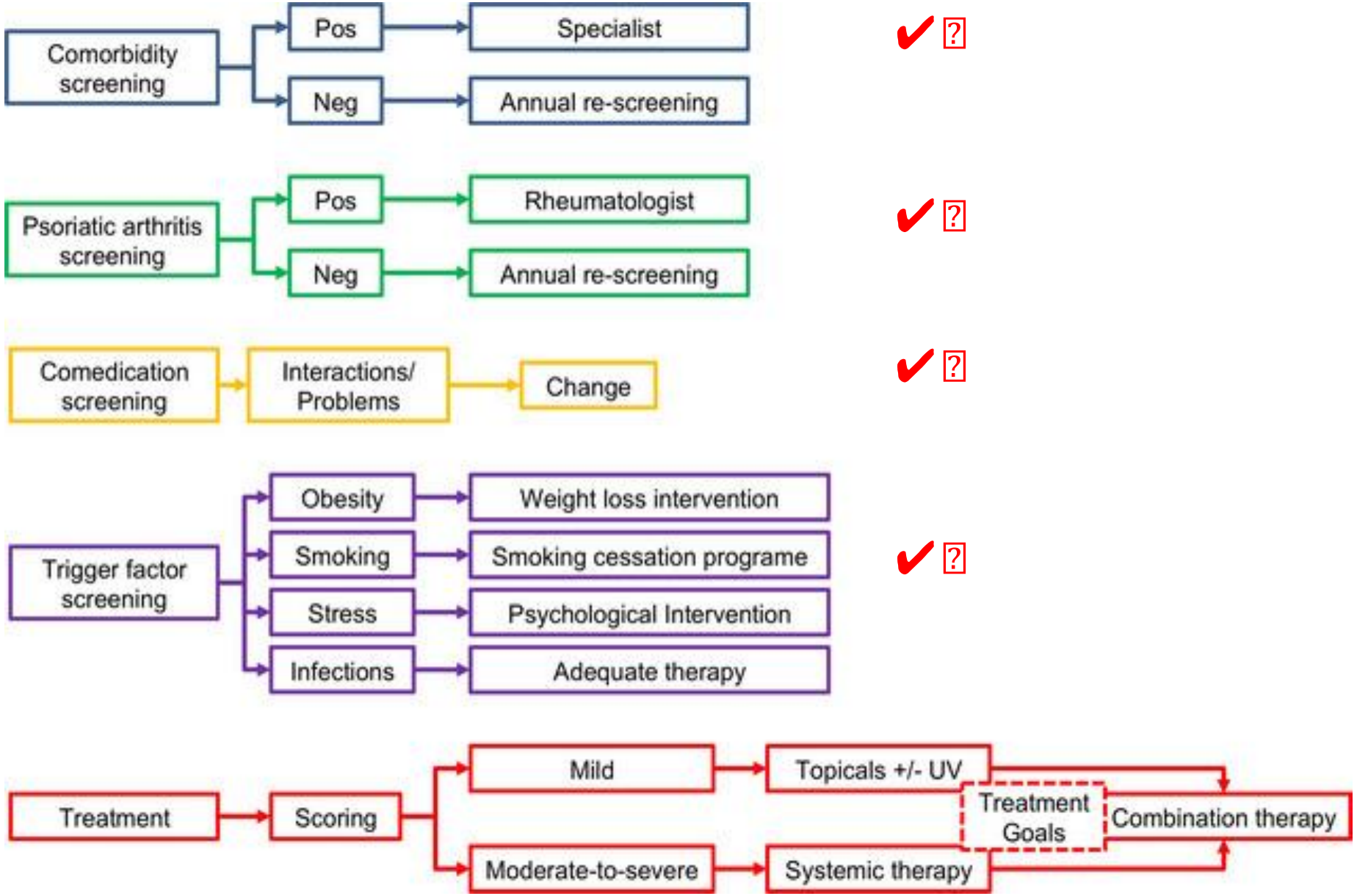
40 yıldan beri psoriasis hastası

Son 3 yıldan beri metotreksat ile kısmi kontrol altında iken şiddetli bulantı nedeniyle tedaviyi kesiyor

Son altı aydır sabah tutukluğu ve sırt ağrısı tarif ediyor

Bir aydır sağ el parmaklarındaki ağrı nedeniyle laptop kullanmakta zorluk çekiyor

Hipertansiyon
Sigara içiyor
Arasıra alkol alıyor
BMI: 28




Experimental Dermatology, Volume: 23, Issue: 10, Pages: 705-709, First published: 11 May 2014, DOI: (10.1111/exd.12437)

# Olgu: İ.C.O

Komorbid durumlar nedeniyle konvansiyonellerle uzun süre tedavi edilemeyen

Sık relapslarla karşımıza gelebilen

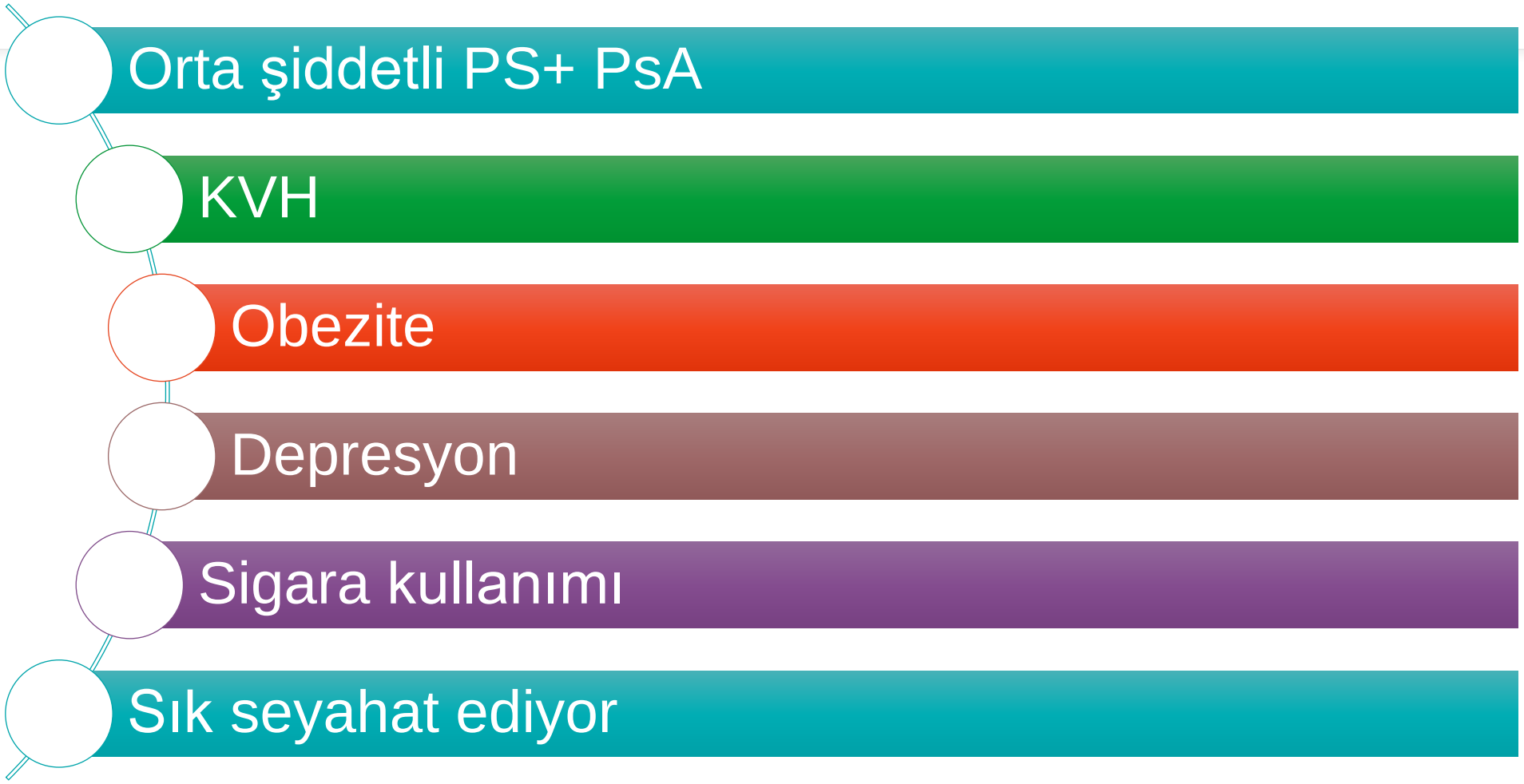
Çoklu ilaç kullanımı, tedavi uyumu düşük

Depresyon vb psikiyatrik problemler

- Romatolojiye konsulte edelim
  - Sedim, CRP, RF, anti-CCP bakılabilir
  - El rx-erozyon?
  - Aksiyal tutulum?
- Kardiyolojiye konsulte edelim
- Sigarayı bırakma
- Psikiyatri konsulte edelim
- Endokrine konsulte edelim
  - Sağlıklı beslenme ve ekzersiz
  - Metabolik sendrom?

**Multidisipliner yaklaşım**

# İ.C.O için değerlendirme



| | | |
|---|---|---|
| We **suggest against** using cyclosporine in patients with psoriasis and advanced congestive heart failure. | ↓ | Strong consensus[1]<br>100% agreement<br>EXPERT CONSENSUS |
| We **suggest** that methotrexate, acitretin and apremilast are considered as treatment in patients with psoriasis and advanced congestive heart failure*. | ↑ | |
| We **suggest** that ustekinumab, inhibitors of IL-17 and of IL-23 are considered as treatment in patients with psoriasis and advanced congestive heart failure*. | ↑ | |
| We **recommend against** using anti-TNFs in patients with psoriasis and advanced congestive heart failure. | ↓↓ | |
| We **recommend** discussing the choice of a systemic therapy in psoriasis patients with advanced congestive heart failure with a cardiologist. | ↑↑ | |

[1]Due to personal-financial conflict of interest 3 abstentions *In case of concormittant ischaemic heart failure, also note the recommendations from the resepective section

| | | |
|---|---|---|
| We **suggest against** cyclosporine or acitretin as preferred treatments in patients with psoriasis and ischemic heart disease. | ↓ | Strong consensus[1]<br>100% agreement<br>EXPERT CONSENSUS |
| We **suggest** methotrexate as preferred first-line therapy in patients with psoriasis and ischemic heart disease* if other patient characteristics do not preclude its use. | ↑ | |
| We **suggest** anti-TNFs, ustekinumab, and IL-17 inhibitors as preferred targeted therapies in patients with psoriasis and ischemic heart disease*. | ↑ | |

| | | |
|---|---|---|
| We **suggest against** using ciclosporin or MTX as a first line treatment in patients with diabetes and/or features of the metabolic syndrome. | ↓ | Consensus[1]<br>  <br>89% agreement<br>EXPERT CONSENSUS |
| We **suggest against** using acitretin as a first line treatment in patients with dyslipidaemia. | ↓ | Strong consensus[1]<br>  <br>100% agreement<br>EXPERT CONSENSUS |

| Therapy / Specific circumstances | Small molecules | TNF inhibitors | | | | Anti-IL12/23 | Anti-IL17 | | | Anti-IL23 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Apremilast | Etanercept | Infliximab | Adalimumab | Certolizumab | Ustekinumab | Secukinumab | Ixekizumab | Brodalumab | Guselkumab | Tildrakizumab | Risankizumab |
| Concomitant psoriatic arthritis | | ↑↑ if non-responder to MTX | | | | | | | | | | |
| Chronic inflammatory bowel disease: Crohn's Disease | | | ↑↑ 1st choice | | | | ↓ | | | ↑ 2nd choice if anti-TNF alpha not suitable | | |
| Chronic inflammatory bowel disease: Ulcerative colitis | ↑ 2nd choice oral treat-ment | | ↑↑ 1st choice | | | ↑↑ 1st choice | ↓ | | | ↑ 2nd choice if anti-TNF alpha not suitable | | |
| Diabetes mel./ metabolic syndrome | | | | | | | | | | | | |
| Dyslipidaemia | | | | | | | | | | | | |
| Advanced heart failure | ↑ | ↓↓ | | | | | | | ↑ | | | |
| Heart Disease: Ischemic heart disease | | ↑ | | | | | | | | | | |
| Concomitant latent / treated TB | ↑ | ↓↓ | | | | | | | | ↑ | | |
| Pregnancy | ↓ | | | | ↑ preferred choice biologic | | | | | | | |

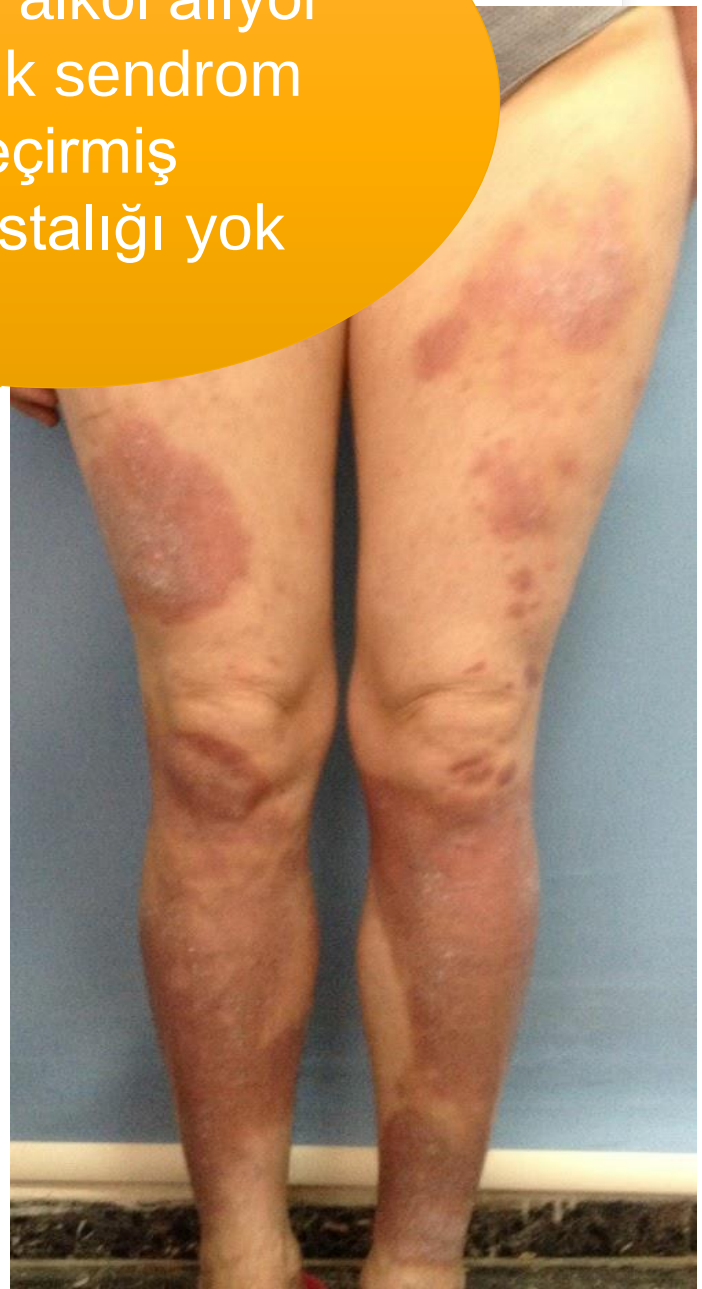
| Symbols | Implications[2] |
|---|---|
| ↑↑ | We believe that all or almost all informed people would make that choice. |
| ↑ | We believe that most informed people would make that choice, but a substantial number would not. |
| | See background text and specific recommendations |
| ↓ | We believe that most informed people would make a choice against that intervention, but a substantial number would not. |
| ↓↓ | We believe that all or almost all informed people would make a choice against that choice. |

| Drug | IBD | Cancer | HF | DM | Obesity | Depression | KD | MS | Lupus |
|---|---|---|---|---|---|---|---|---|---|
| Infliximab | ++ | +/- | P/C | ++ | + | + | ++ | C | - |
| Adalimumab | ++ | +/- | P/C | ++ | + | ++ | ++ | C | - |
| Etanercept | + | +/- | P | ++ | + | ++ | ++ | C | - |
| Certolizumab pegol | ++ | +/- | P/C | ++ | + | + | ++ | C | - |
| Brodalumab | NR | + | ++ | ? | ++ | P | ++ | + | + |
| Ixekizumab | P | + | ++ | ? | ++ | ++ | ++ | + | + |
| Secukinumab | NR | + | ++ | + | ++ | ? | ++ | + | + |
| Guselkumab | + | + | ++ | ? | ++ | ++ | ++ | + | + |
| Risankizumab | + | + | ++ | ? | ++ | ? | ++ | + | + |
| Ustekinumab | ++ | + | ++ | + | ++ | ++ | ++ | + | + |
| Tildrakizumab | + | + | ++ | ? | ++ | ? | ++ | + | + |

ACTAS Dermo-Sifiliográficas 113 (2022) T583-T609

# Olgu: S.Ç.

Sigara içiyor
Arasıra alkol alıyor
Nefrotik sendrom geçirmiş
Ek hastalığı yok

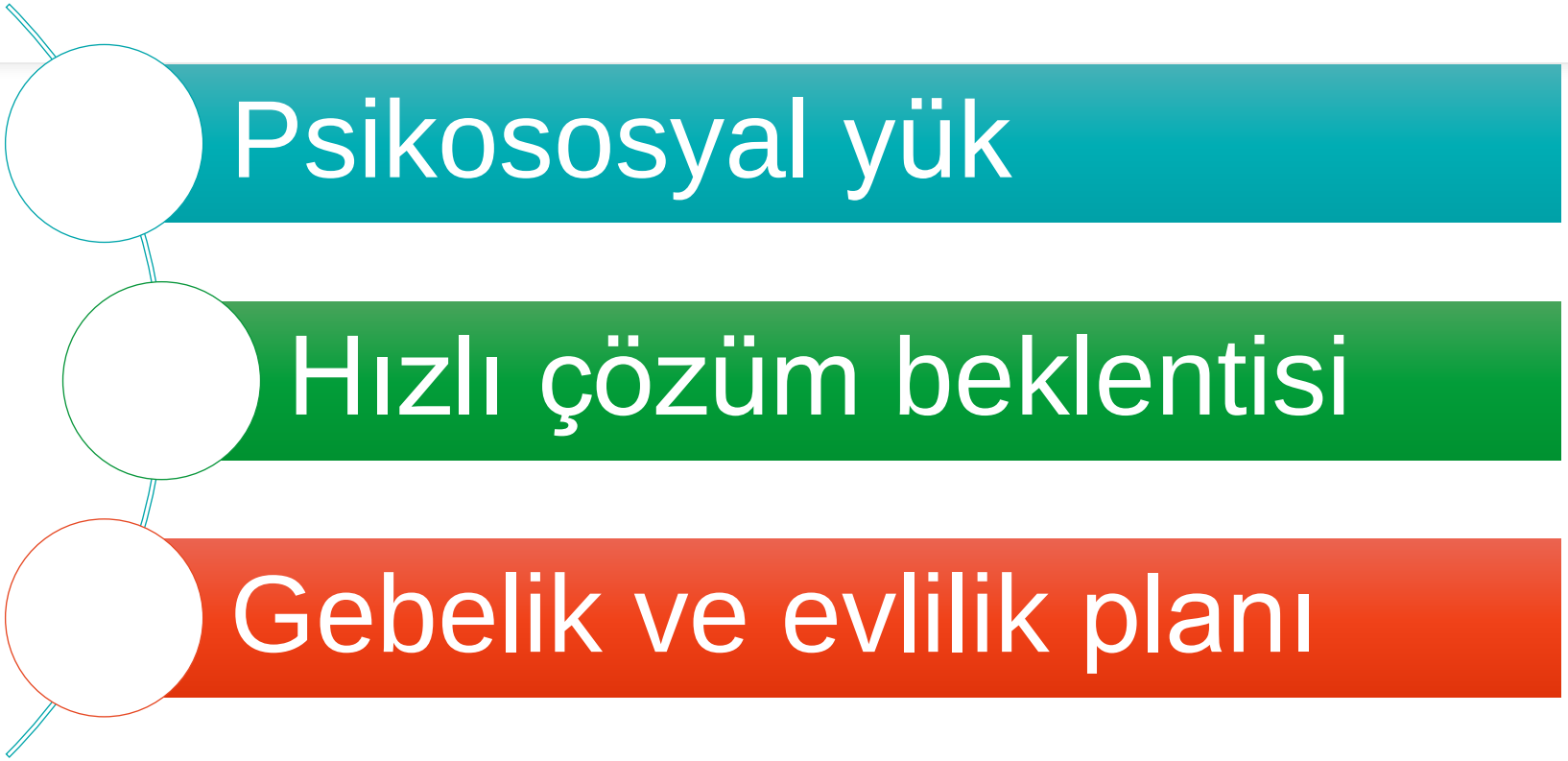


- 29 yaşında hemşire
- 16 yaşından beri psoriasis hastası
- Lezyonlar özellikle el sırtı ve saçlı deride yerleşik ve mesleki ve sosyal anlamda çok zorlayıcı
- Birkaç ay içinde evlenecek ve uzak olmayan bir zaman diliminde gebelik planlıyor
- Hızlı ve etkili bir çözüm beklentisi var, düğüne kadar iyileşmek istiyor

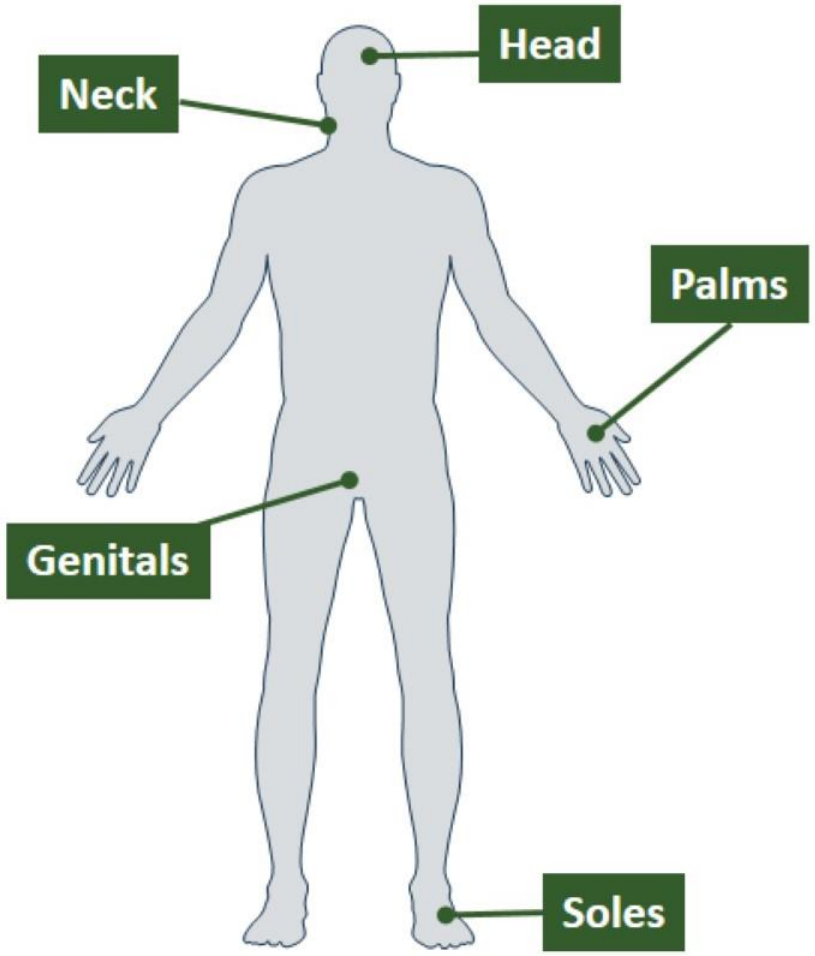
# Olgu S.Ç.

- Hızlı etkili tedavi arayışı
- Genç ve sağlıklı bir hasta
- Evlilik ve gebelik planı var
- Güçlü psikososyal hastalık yükü

# Hasta için değerlendirme



# Hastalık şiddetinin ölçümü




**Hastalığın yaygınlığı[a]**
- Vücut yüzey alanı
- Lezyon şiddeti

**Lezyonların yerleşimi[b]**
- Hassas alanlar
- Fiziksel ve duygusal etki

**Yaşam kalitesine etkisi[b]**
- Günlük aktivitelerin engellenmesi
- Sosyal ve aile yaşamına etki

a. Lebwohl MG, et al. *Am J Clin Dermatol.* 2016;17:87-97; b. Smith CH, et al. *Br J Dermatol.* 2009;161:987-1019.

| | | |
|---|---|---|
| We **suggest** certolizumab pegol as a first line choice when starting biologic therapy in women planning conception (when a biologic is considered essential to use in pregnancy) and when it is necessary to start a systemic therapy during the second or third trimester. | ↑ | Strong consensus[1]<br>100% agreement<br>EXPERT CONSENSUS |
| We **suggest** stopping biologic therapy in the second and third trimester (except certolizumab pegol) to minimise fetal exposure and limit potential infection risk to the neonate. | ↑ | |
| We **suggest against** using live or live attenuated vaccines in infants (up to 6 months of age) whose mothers received biologic therapy beyond 16 weeks gestation, unless the benefit of the vaccination clearly outweighs the theoretical risk of administration. | ↓ | |
| We **recommend** consultation and information sharing across specialties, including with an obstetrician with expertise in caring for pregnant women with medical problems | ↑↑ | |
| We **recommend** the collection of maternal exposure to medications and pregnancy outcome data in national safety registries where available. | ↑↑ | |

[1]Due to personal-financial conflict of interest 3 abstentions

| Therapy / Specific circumstances | Small molecules | TNF inhibitors | | | | Anti-IL12/23 | Anti-IL17 | | | Anti-IL23 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Apremilast | Etanercept | Infliximab | Adalimumab | Certolizumab | Ustekinumab | Secukinumab | Ixekizumab | Brodalumab | Guselkumab | Tildrakizumab | Risankizumab |
| Concomitant psoriatic arthritis | | ↑↑ if non-responder to MTX | | | | | | | | | | |
| Chronic inflammatory bowel disease: Crohn's Disease | | | ↑↑ 1st choice | | | | ↓ | | | ↑ 2nd choice if anti-TNF alpha not suitable | | |
| Chronic inflammatory bowel disease: Ulcerative colitis | ↑ 2nd choice oral treat-ment | | ↑↑ 1st choice | | | ↑↑ 1st choice | ↓ | | | ↑ 2nd choice if anti-TNF alpha not suitable | | |
| Diabetes mel./ metabolic syndrome | | | | | | | | | | | | |
| Dyslipidaemia | | | | | | | | | | | | |
| Advanced heart failure | ↑ | ↓↓ | | | | | | | ↑ | | | |
| Heart Disease: Ischemic heart disease | | ↑ | | | | | | | | | | |
| Concomitant latent / treated TB | ↑ | ↓↓ | | | | | | | | ↑ | | |
| Pregnancy | ↓ | | | | ↑ preferred choice biologic | | | | | | | |

| Symbols | Implications[2] |
|---|---|
| ↑↑ | We believe that all or almost all informed people would make that choice. |
| ↑ | We believe that most informed people would make that choice, but a substantial number would not. |
| | See background text and specific recommendations |
| ↓ | We believe that most informed people would make a choice against that intervention, but a substantial number would not. |
| ↓↓ | We believe that all or almost all informed people would make a choice against that choice. |

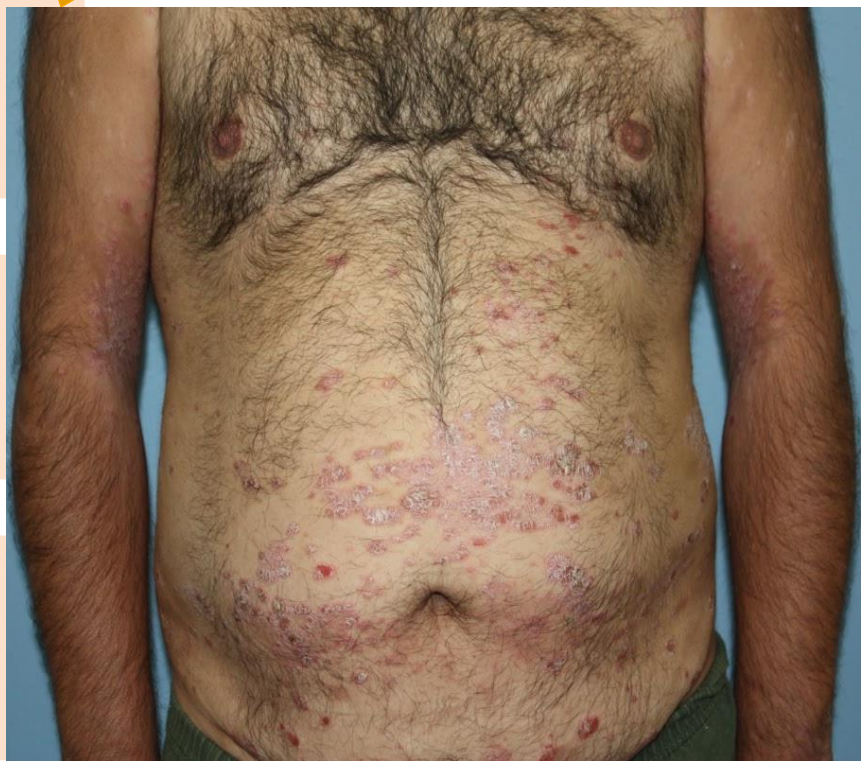
| | | |
|---|---|---|
| **Pregnancy**<br>Close collaboration with an obstetrician-gynaecologist and paediatrician if CSA or TNFi are maintained during pregnancy. | • Prefer NBUVB (**Grade B**).<br>• Consider CSA (**Grade B**).<br>• ***Avoid*** PUVA (no sufficient data) (**Expert opinion**).<br>• ***Absolute contraindication***: acitretin, MTX, (**Grade A**). | • Consider start or maintenance of ETA throughout if there is no alternative (**Grade C**). ADA or INFLI can be maintained until the 3rd trimester if there is no alternative (**Expert opinion**).<br>• ***Avoid*** USTK and anti-IL17 and APR (**Expert opinion**): not enough available data. |
| **Pregnancy (future planning)** | Interrupting treatment is mandatory for:<br>• acitretin: 3 years before conception (**Grade A**);<br>• MTX: 24 h before for women and 3 months for men (**Grade A**);<br>• PUVA (**Expert opinion**).<br>• Continuation of CSA (**Grade B**) or NBUVB (**Grade B**) is allowed. | • Consider maintenance of ETA if there is no alternative (**Grade C**). If there is no alternative, ADA or INFLI can be initiated or continued if necessary but must be discontinued at the end of the second trimester of pregnancy (**Expert opinion**).<br>• Ideally **interrupt** TNF inhibitors before conception (according to SmPC):<br>  ○ ETA: 3 weeks before<br>  ○ ADA: 20 weeks before<br>  ○ INFLI: 24 weeks before<br>• ***Interrupt*** the following treatments according to SmPC (5–7 half-lives before conception):<br>  ○ USTK: 15 weeks before |

JEADV 2019, 33, 464–483

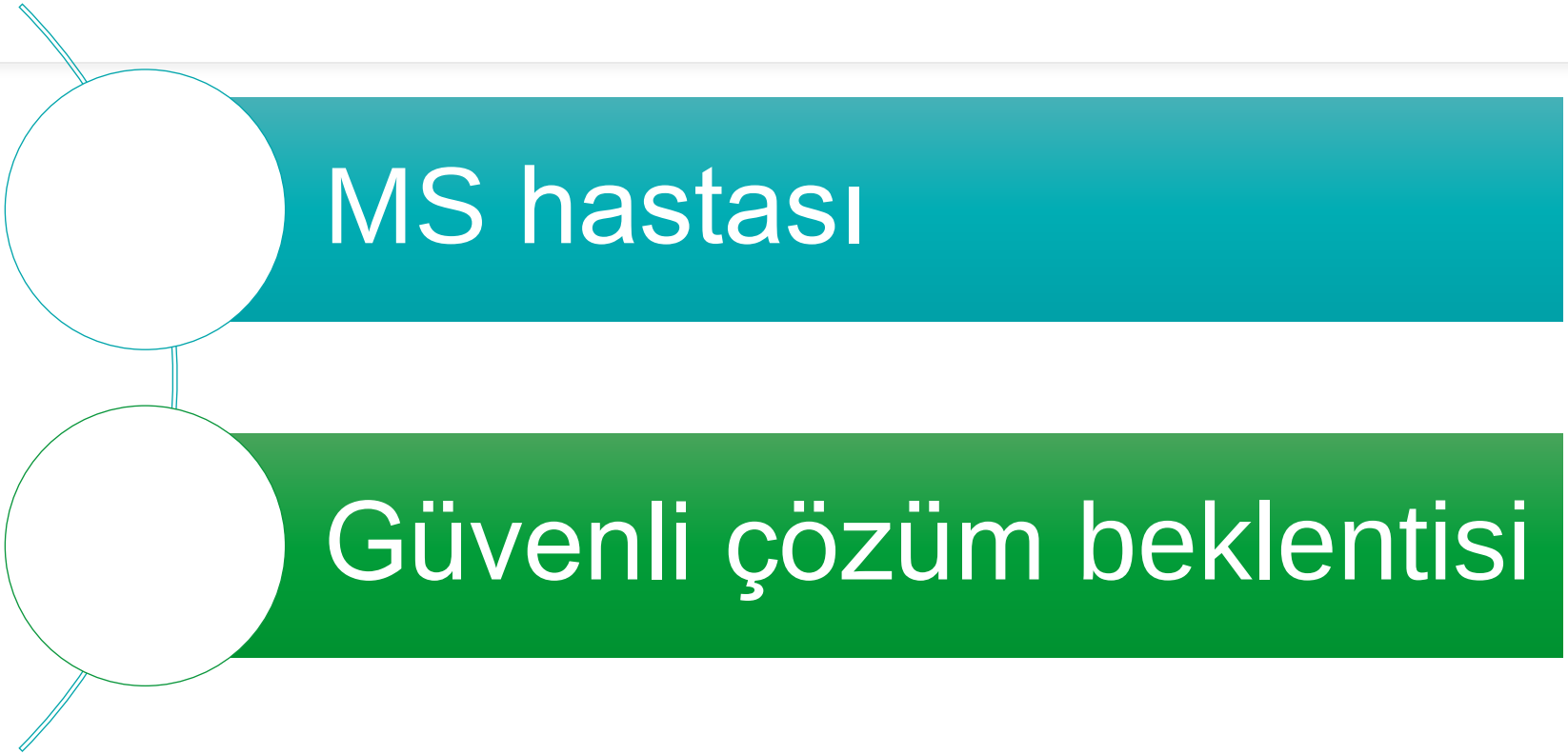
# Olgu: M.T.

MS hastası
Ek alışkanlıkları yok

- 41 yaşında mühendis, bekar
- 4 yıldan beri psoriasis, 10 yıldan beri MS hastas
- Lezyonlar son bir yılda lezyonlar gövdede yayılmış
- Güvenli tedavi arayışında



# Hasta için değerlendirme



| | | |
|---|---|---|
| We **suggest** using fumarates in psoriasis patients with multiple sclerosis. | ↑ | Strong consensus[1] |
| We **recommend against** using TNF antagonist therapy in psoriasis patients with a diagnosis of multiple sclerosis or other demyelinating disease. | ↓↓ | 100% agreement |
| In psoriasis patients with a first degree relative with multiple sclerosis or other demyelinating disease, we **suggest against** the use of TNF antagonist therapy if other suitable treatment options are available. | ↓ | EXPERT CONSENSUS |

[1]Due to personal-financial conflict of interest 3 abstentions

| Class of drugs | Drug/comorbidity | PsA | CD | CA | Obesity | Cardiac | CHF | MS | Lupus |
|---|---|---|---|---|---|---|---|---|---|
| TNF-$\alpha$ inhibitors | Etanercept | ++ | + | – | + | ++ | –/+ | x | +/– |
| | Adalimumab | ++ | ++ | – | + | ++ | –/+ | x | +/– |
| | Infliximab | ++ | ++ | – | ++ | ++ | –/+ | x | +/– |
| | Certolizumab | ++ | ++ | – | + | ++ | –/+ | x | +/– |
| | Golimumab | ++ | ++ | – | + | ++ | –/+ | x | +/– |
| IL-12/23 inhibitor | Ustekinumab | + | ++ | + | ++ | + | ++ | + | + |
| IL-17 inhibitors | | | | | | | | | |
| Anti–IL-17A | Secukinumab | ++ | – | ?/+ | ++ | ? | ++ | + | ?/+ |
| Anti–IL-17A | Ixekizumab | ++ | – | ?/+ | ++ | ? | ++ | + | ?/+ |
| Anti–IL-17 receptor | Brodalumab | + | – | ?/+ | ++ | ? | ++ | + | ?/+ |
| IL-23 inhibitors | Guselkumab | ? | + | ?/+ | ++ | ? | ++ | ?/+ | ?/+ |
| | Tildrakizumab | ? | + | ?/+ | ++ | ? | ++ | ?/+ | ?/+ |
| | Risankizumab | ? | + | ?/+ | ? | ? | ++ | ?/+ | ?/+ |
| | Mirikizumab | ? | + | ?/+ | ? | ? | ++ | ?/+ | ?/+ |
| Oral novel | Apremilast | + | + | ?/+ | ++ | ? | ++ | ?/+ | + |
| Oral traditional | Methotrexate | + | + | – | x | ++ | ++ | + | + |
| | Cyclosporine | +/– | + | x | + | ?/– | ++ | + | +/– |
| | Acitretin | +/– | + | ++ | + | ?/– | ++ | + | + |

Note: Two plus symbols (++) indicates preferred agents; one plus symbol (+) indicates that the agent can be used; one plus symbol and one minus symbol (+/–) indicate that the drug can be used but is controversial; one minus symbol and one plus symbol (–/+) indicates that the drug is not preferred but can be used; one question mark and one plus symbol (?/+) indicates that there are not enough data but that the drug is likely safe to use; one question mark (?) indicates that there are not enough data; one minus symbol (–) indicates that use of that drug is controversial because there are not enough data; and x indicates that a drug is contraindicated.

*CA*, Cancer; *CD*, Crohn's disease; *CHF*, congestive heart failure; *IL*, interleukin; *MS*, multiple sclerosis; *PsA*, psoriatic arthritis; *TNF-$\alpha$*, tumor necrosis factor–$\alpha$.

J Am Acad Dermatol 2019;80:27-40

**Comorbidities and special circumstances**

| Global management | First-line systemic treatments<br>Phototherapy, MTX, CSA, acitretin | Second-line systemic treatments<br>TNFi (ETA, ADA or INFLI), USTK, anti-IL17 (IXE or SEC), APR |
|---|---|---|
| **Active alcohol abuse** | | |
| Refer to an addictologist for withdrawal. | • Prefer NBUVB (**Grade C**) rather than PUVA.<br>• Acitretin, MTX, and CSA should not be considered as first-line treatments (**Grade B**). | • Prefer TNFi (particularly INFLI for improving compliance) or USTK (**Grade C**).<br>• Consider anti-IL 17 or apremilast (**Expert opinion**) – population excluded from clinical trials. |
| **Breastfeeding** | | |
| | • Prefer NBUVB (**Expert opinion**) or CSA (**Grade A**).<br>• Consider MTX (**Grade C**) (wait 24 h after the administration of MTX to breastfeed a child).<br>• ***Avoid*** PUVA (insufficient data) (**Expert opinion**).<br>• Absolute contraindication: Acitretin (**Grade A**). | • Consider start or maintenance of TNFi if there is no alternative (**Expert Opinion**).<br>• ***Avoid*** USTK, anti-IL17 and APR (**Expert opinion**): not enough available data. |
| **Cancer (cured)** | | |
| Close collaboration with oncologist and/or multidisciplinary cancer care team. | • Prefer MTX or phototherapy (except in cases of skin cancer) or acitretin (**Grade C**).<br>• ***Avoid*** CSA (**Grade A**). | • Case-by-case decision (**Grade C**).<br>• The initiation of a biological agent has to be discussed with the oncologist and depends on the stage and prognosis of the tumour (**Grade C**).<br>• If no alternative, consider USTK or TNFi (prefer ETA or ADA) (**Grade C**).<br>• Not enough follow-up data for APR and anti-IL 17 |
| **Demyelinating disease** | | |
| Involve a neurologist. | • Prefer MTX (**Grade C**).<br>• Consider phototherapy (**Grade C**).<br>• No data available for acitretin and CSA (be aware of the neurotoxic effects of CSA, **Expert opinion**). | • Prefer USTK (**Grade C** – longer follow-up data compared to anti-IL17).<br>• Consider anti-IL17 (**Grade C** – no negative effect of SEC on multiple sclerosis in phase II).<br>• ***Avoid*** TNFi (**Grade C**).<br>• No data available for APR. |
| **Diabetes** | | |
| • Involve a diabetologist in case of uncontrolled diabetes.<br>• If possible, delay treatment initiation in patients with a glycosylated haemoglobin >8%. | • Prefer phototherapy (**Grade C**).<br>• Consider acitretin (**Grade C**) except in patients with dyslipidaemia.<br>• Consider MTX in case of phototherapy and acitretin contraindications (**Grade B**). Apply caution because of the increased risk of infection and hepatic fibrosis.<br>• ***Avoid*** CSA (**Grade B**). | • Prefer biological agents with a short half-life or those with fewer associations with an increased infectious risk (***Avoid*** INFLI) (**Expert opinion**).<br>• Refer to major cardiovascular risk section below.<br>• Not enough data but no negative feedback for anti-IL17 and APR. |
| **Heart failure** | | |
| Involve a consultant cardiologist. | • Prefer NBUVB (**Grade C**) or acitretin (**Expert opinion**) or MTX (**Expert opinion**).<br>• ***Avoid*** CSA because of the associated increase in blood pressure (**Grade A**). | • NYHA I or II CHF: consider TNFi (prefer ETA) or USTK (**Grade C**).<br>• NYHA III or IV CHF: prefer USTK (**Expert opinion**).<br>• ***Avoid*** TNFi in NYHA class III or IV CHF (deleterious) (**Grade A**).<br>• Not enough data but no negative feedback for anti-IL17 and APR. |

JEADV 2019, 33, 464–483

# Sistemik tedavide takipte ilaçlara göre farklılık gösterir mi?

**Tablo VII. Asitretin tedavisi öncesi ve tedavi takibinde yapılacak laboratuvar tetkikleri [96]**

| Test | Tedavi öncesi | 4 hafta sonra | 8 hafta sonra | 12 hafta sonra | 3 ayda bir |
|---|---|---|---|---|---|
| Tam kan sayımı | + | + | + | + | + |
| ALT, AST | + | + | + | + | + |
| S Cre,BUN | + | + | + | + | + |
| Lipid profili | + | + | + | + | + |
| AKŞ | + | | + | | |
| Gebelik testi | + | + | Aylık | | |

ALT: Alanin aminotransferaz, AST: Aspartat transaminaz, BUN: Kan üre azotu

**Tablo 2. Metotreksat kullanan hastalarda tedavi öncesi ve takip sırasında yapılması gereken testler**

| | Tedavi öncesi | Takip |
|---|---|---|
| Tam kan sayımı | + | · İlk aylarda 2-4 haftada bir<br>· Sonrasında 3 ayda bir<br>· Eğer kan sayımında anormallik varsa testler daha sık tekrarlanmalıdır<br>· Kontrol tetkikleri ikinci dozdan hemen önce yapılmalıdır |
| Karaciğer enzimleri | + | · İlk aylarda 2-4 haftada bir<br>· Sonrasında 3 ayda bir |
| Böbrek fonksiyonları | + | · 2-3 ayda bir |
| Beta HCG | + | · Başlangıçta ve gerektiğinde |
| Hepatit B serolojisi | + | |
| HIV ve Hepatit C serolojisi | + | · Hasta öyküsü , klinik bulgular ve diğer laboratuvar testler işaret ediyorsa |

# Psoriasis Tedavi Kılavuzu 2021

www.psoriasisdernegi.org

## Siklosporin

| Tetkikler | Tetkik istenecek haftalar | | | | | |
|---|---|---|---|---|---|---|
| | Tedavi öncesi | 2 | 4 | 8 | 12 | 16 |
| Tam kan sayımı | x | x | x | x | x | x |
| Karaciğer enzimleri + | x | x | x | x | x | x |
| Elektrolitler ++ | x | x | x | x | x | x |
| Serum kreatinin | x | x | x | x | x | x |
| İdrar tahlili | x | | x | | | x |
| Ürik asit | x | | x | x | x | x |
| Gebelik testi | x | | | | | |
| Kolesterol, trigliserid | x | | | | | |
| Magnezyum +++ | x | | x | | x | |
| HBA/HBV | x | | | | | |
| HIV | x | | | | | |

| Biyolojik tedavi öncesinde ve izlemde yapılması gereken laboratuvar incelemeler | | | | | |
|---|---|---|---|---|---|
| Zaman (ay)→<br>Tetkik ↓ | Tedavi başlangıcı | 3. ay | 6. ay | 9. ay | 12.ay |
| Tam kan sayımı | X | X | X | X | X |
| Tam idrar testi | X | X | X | X | X |
| Semantasyon | X | X | X | X | X |
| ALT, AST | X | X | X | X | X |
| Üre, kreatinin | X | X | X | X | X |
| Glukoz | X | X | X | X | X |
| PPD testi | X | | | | |
| Akciğer grafisi | X | | | | X |
| Quantiferon testi | X | | | | X |
| CRP | X | | | | |
| Gebelik testi | X | | | | |
| Anti_HIV testi | X | | | | |
| HBV yüzey Ag-HBV yüzey Ab-anti-HBVcore Ab-an-ti-HCV | X | | | | |

# Guidance for latent TB screening in patients requiring initiation of biologic therapy

NHS Tayside

## Purpose of guidance

One third of the worlds population has latent TB infection (LTBI)[1] and use of biologics has been demonstrated to increase the risk of reactivation of LTBI[2]. A cross specialty approach has agreed the following pathway for the screening of patients in Tayside who are due to start biologic therapy.

## Important exceptions

Patients requiring emergency initiation of biologic due to disease severity should **not** have treatment delayed. Screening for LTBI can be performed synchronously with initiation of biologic therapy

## Biologics which require latent TB screening

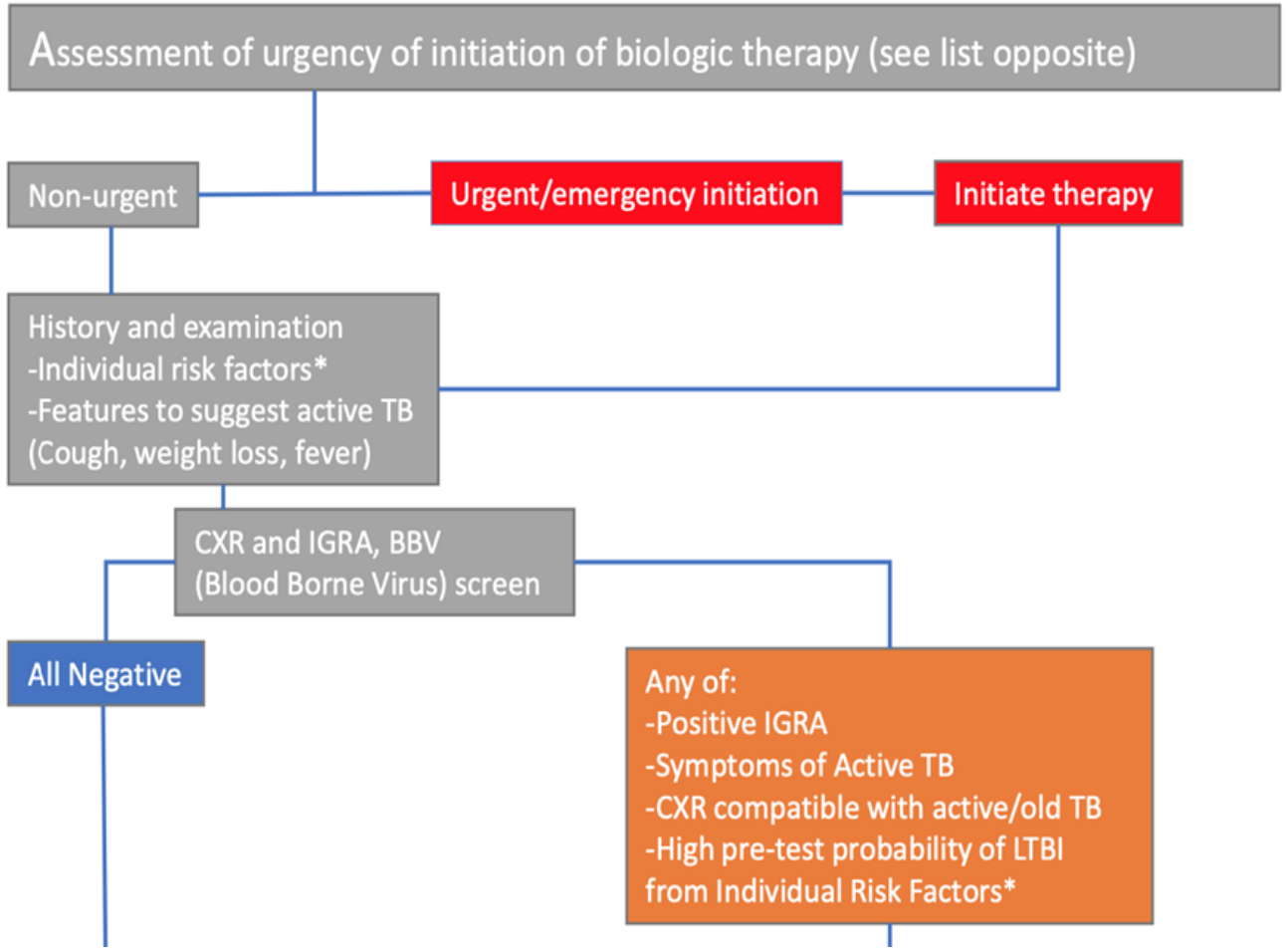
(**red** – proven high risk, black – potential risk)

| | | |
|---|---|---|
| **Abatacept** | **Etanercept** | Secukinumab |
| **Adalimumab** | **Golimumab** | Tildrakizumab |
| **Alemtuzumab** | Guselkumab | Tocilizumab |
| **Anakinra** | **Infliximab** | **Tofacitinib** |
| **Baricitinib** | Ixekizumab | **Upadacitinib** |
| Brodalumab | Risankizumab | Ustekinumab |
| **Certolizumab** | Sarilumab | Vedolizumab |

**NB** List not necessarily exhaustive – if in doubt contact kirsteen.hill@nhs.scot or david.connell@nhs.scot

## *Individual Risk Factors

-Close Contact with TB in previous 5 years
-Recent entry (within 5y) to UK from a high incidence country (>150/100 000) having spent at least 3/12 there
-At risk populations – homeless person, PWID, BBV (HIV, Hep B, Hep C), incarceration
-Those who work in close contact with high risk populations



# Hasta iyileştiğinde tedaviyi kesmeli miyiz?

Tedavi tatili

Etkinlik kaybı

Güvence kaybı

Yaşamsal olaylar-operasyon, pandemi, gebelik, enfeksiyon, malignite

Advers olaylar

# Tedavi Paterni

- Tedaviye yanıt oranları %50-80 arasında
- Bir yıl sonunda tedaviden çıkanlar konvansiyoneller ile %48, biyolojikler ile %43
- 4 yılın sonunda tedavide kalanlar %40-70 arasında
- 23.9 ay tedavide switch oranı %10.6
- Sınıflar arası geçiş konvansiyonellerde %50, biyolojiklerde %25

J Eur Acad Dermatol Venereol 2015; 29:215–23.

Br J Dermatol, 2011
Br J Dermatol, 2013

# Tedavi Paterni

- Tedavi kesildikten sonra 2-6 ay sonra nüksler görülür
- PASI≥5 ve DYKİ≥5, artrit gelişimi ve hızlı nüks tekrar tedavi başlanır
- Hızlı ve şiddetli nüksler tedavi tekrarında hastalık kontrolünü zorlaştırır
- İlk tedaviden sonraki lezyonsuz aralıklar sonraki döngülerde kısalır

J Eur Acad Dermatol Venereol. 2014;28:438---53

| | All | ACI | CyA | FAE | MTX | ADA | ETA | INF | UST |
|---|---|---|---|---|---|---|---|---|---|
| Treatment courses | 696 | 63 | 19 | 158 | 174 | 137 | 46 | 40 | 59 |
| Discontinued, n (%)[#] | 435 (62.5) | 53 (84.1) | 19 (100.0) | 108 (68.4) | 129 (74.1) | 62 (45.3) | 29 (63.0) | 26 (65.0) | 9 (15.3) |
| Adverse events, n (%)[#] | 210 (30.2) | 24 (38.1) | 11 (57.9) | 67 (42.4) | 69 (39.7) | 17 (12.4) | 5 (10.9) | 14 (35.0) | 3 (5.1) |
| Lack of efficacy, skin, n (%)[#] | 148 (21.3) | 22 (34.9) | 5 (26.3) | 33 (20.9) | 37 (21.3) | 26 (19.0) | 13 (28.3) | 8 (20.0) | 4 (6.8) |
| Lack of efficacy, joints, n (%)[#] | 48 (6.9) | 1 (1.6) | 0 (0.0) | 2 (1.3) | 24 (13.8) | 12 (8.8) | 7 (15.2) | 2 (5.0) | 0 (0.0) |
| Remission, n (%)[#] | 9 (1.3) | 2 (3.2) | 0 (0.0) | 1 (0.6) | 4 (2.3) | 1 (0.7) | 1 (2.2) | 0 (0.0) | 0 (0.0) |
| Other reason, n (%)[#] | 29 (4.2) | 2 (3.2) | 3 (15.8) | 9 (5.7) | 5 (2.9) | 3 (2.2) | 3 (6.5) | 3 (7.5) | 1 (1.7) |
| Not specified, n (%)[#] | 3 (0.4) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 1 (0.6) | 2 (1.5) | 0 (0.0) | 0 (0.0) | 0 (0.0) |
| Lost to follow-up, n (%)[#] | 21 (3.0) | 3 (4.8) | 0 (0.0) | 5 (3.2) | 3 (1.7) | 5 (3.6) | 3 (6.5) | 1 (2.5) | 1 (1.7) |

[#]Due to the possibility of multiple answers, the total number of reasons given for treatment discontinuation exceeds the number of terminated treatment courses.

*Abbr.:* ACI, acitretin; ADA, adalimumab; CyA, cyclosporine A; ETA, etanercept; FAE, fumaric acid esters; INF, infliximab; MTX, methotrexate; UST, ustekinumab.

JDDG 1610-0379/2016/1411

# Geçiş Nedenleri

| Reason for switching | Biologic to conventional | Conventional to biologic | Total |
|---|---|---|---|
| Inefficacy or loss of efficacy | 68 (35.4%) | 169 (56%) | 237 (48%) |
| Adverse event | 33 (17.2%) | 63 (21%) | 96 (19.4%) |
| Pregnancy or intention to become pregnant | 3 (1.6%) | 4 (1.3%) | 7 (1.42%) |
| Loss of patient | 3 (1.6%) | 1 (0.3%) | 4 (0.8%) |
| Remission | 37 (19.2%) | 17 (5.63%) | 54 (11%) |
| Others | 48 (25%) | 48 (15.9%) | 96 (19.4%) |
| Total | 192 (100%) | 302 (100%) | 494 (100%) |

Actas Dermosifiliogr. 2015;106(8):638---643

# ETKİNLİK KAYBI

- **Primer etkinsizlik**

**İndüksiyon sonunda PAŞİ75 veya PAŞİ50+ YKİ'inde 5 puandan az gerileme**

**Sitokin profili, Genetik**

- **İkincil etkinsizlik**

**İndüksiyon hedefine ulaştıktan sonra idamede PAŞİ75 cevabının korunamaması-etkinlik kaybı**

**AİA gelişimi, Farmakokinetik heterojenite, Düzensiz ilaç kullanımı, otoimmüniteye yatkınlık**

# Etkinlik kaybını etkileyen dış faktörler

- Enfeksiyonlar (streptokokkal)
- Stres
- İlaç kullanımı
- Alkol
- Sigara
- Travma
- Tedaviye uyumsuzluk
- Sosyal ve çevresel etkiler
- Psoriatik lezyonların süperenfeksiyonu

J Dermatolog Treat, 2016; 27(2): 128–133

# Tıbbi Olmayan geçiş nedenleri

- **Ekonomik sebepler:** katkı payı, sigorta, iş kaybı, geri ödeme değişimi, diğer
- Sağlık giderleri daha yüksek
- Yan etki daha fazla
- Tedavi etkinliği daha düşük
- Tedaviye devam edenlerde alevlenme %53.6 vs. geçiş/bırakanlarda %79.6
- Alevlenme şiddeti, ayaktan ve yatarak tedavi ve acile başvuru geçiş/bırakanlarda daha fazla

Clin Ther. 2017;39:849–862

# Rehberler ne dİyor?

PharmacoEconomics (2014) 32:395–409
DOI 10.1007/s40273-014-0130-5

SYSTEMATIC REVIEW

## Treatment Sequencing After Failure of the First Biologic in Cost-Effectiveness Models of Psoriasis: A Systematic Review of Published Models and Clinical Practice Guidelines

Josephine Mauskopf · Miny Samuel · Doreen McBride · Usha G. Mallya · Steven R. Feldman

Birçok hasta ilk biyolojikle etkinlik kaybı yaşayabilmekte
Bu durumda immün süpresan eklemek veya ikinci bir biyolojiye geçmek durumu olabilir
Maliyet analizli tedavi sıralama algoritmalarına gereksinim var

REVIEW ARTICLE

# Intermittent use of biologic agents for the treatment of psoriasis in adults

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## Abstract

Current clinical recommendations suggest that continuous treatment of moderate-to-severe psoriasis with biologic agents is more effective than intermittent treatment in terms of achieving remission and maintaining it. Intermittent treatment, however, may provide an alternative approach in patients unwilling or unable to maintain a continuous regimen, such as those who would prefer a 'treatment vacation' after achieving long-term remission, those who require treatment cessation owing to adverse events, and where insurance arrangements do not provide sufficient cover for continuous treatment. We conducted a literature search of PubMed to identify publications reporting data on the efficacy and safety of intermittent treatment with biologic agents in adults with psoriasis, specifically the use of inhibitors of tumour necrosis factor (adalimumab, certolizumab pegol, etanercept and infliximab), interleukin (IL)-12/IL-23 (ustekinumab), IL-23 (guselkumab) and IL-17 (brodalumab, ixekizumab and secukinumab). From our search, we identified 18 relevant publications reporting the intermittent use of the biologic therapies of interest: five described etanercept, three described adalimumab, two each described infliximab, ixekizumab or ustekinumab, and one each described certolizumab pegol, guselkumab, brodalumab and secukinumab. In general, there were large proportions of patients (≥60%) who were able to re-establish disease control (as defined by each study) following re-treatment, and the safety profiles of the various agents during re-treatment were as anticipated from their profiles observed during continuous dosing. The exception to these general findings was infliximab, which showed the lowest rate of efficacy-endpoint achievement (25% and 38% in two dosing groups evaluated) as well as a higher incidence of adverse infusion reactions compared with continuous dosing. In conclusion, the use of biologic agents in psoriasis is changing and current clinical data suggest that intermittent treatment may provide an effective and well-tolerated option for certain patients.

**Table 14** Candidates for continuous vs. intermittent therapy

- Candidates for continuous therapy:
  - Patients with a history of sustained disease activity with limited therapeutic control for 6 months or more per year, with one or more flares
  - Patients with a good therapeutic response, but who are very dependent on treatment owing to rapid recurrences
  - Patients with joint involvement
  - Patients with an increased risk of cardiovascular disease
- Candidates for intermittent therapy:
  - Patients with a good response and without fast relapses
  - Patients with a history of short exacerbations (lasting less than 6 months a year), with one or more flares

JEADV 2016, 30 (Suppl. 2), 1–18

Drugs (2021) 81:349–366
https://doi.org/10.1007/s40265-020-01448-z

REVIEW ARTICLE

# Dose Tapering of Biologics in Patients with Psoriasis: A Scoping Review

C. A. J. Michielsens[1,2,3] · M. E. van Muijen[1,2] · L. M. Verhoef[3] · J. M. P. A. van den Reek[1,2] · E. M. G. J de Jong[1,2,4]

Published online: 16 January 2021


## Abstract

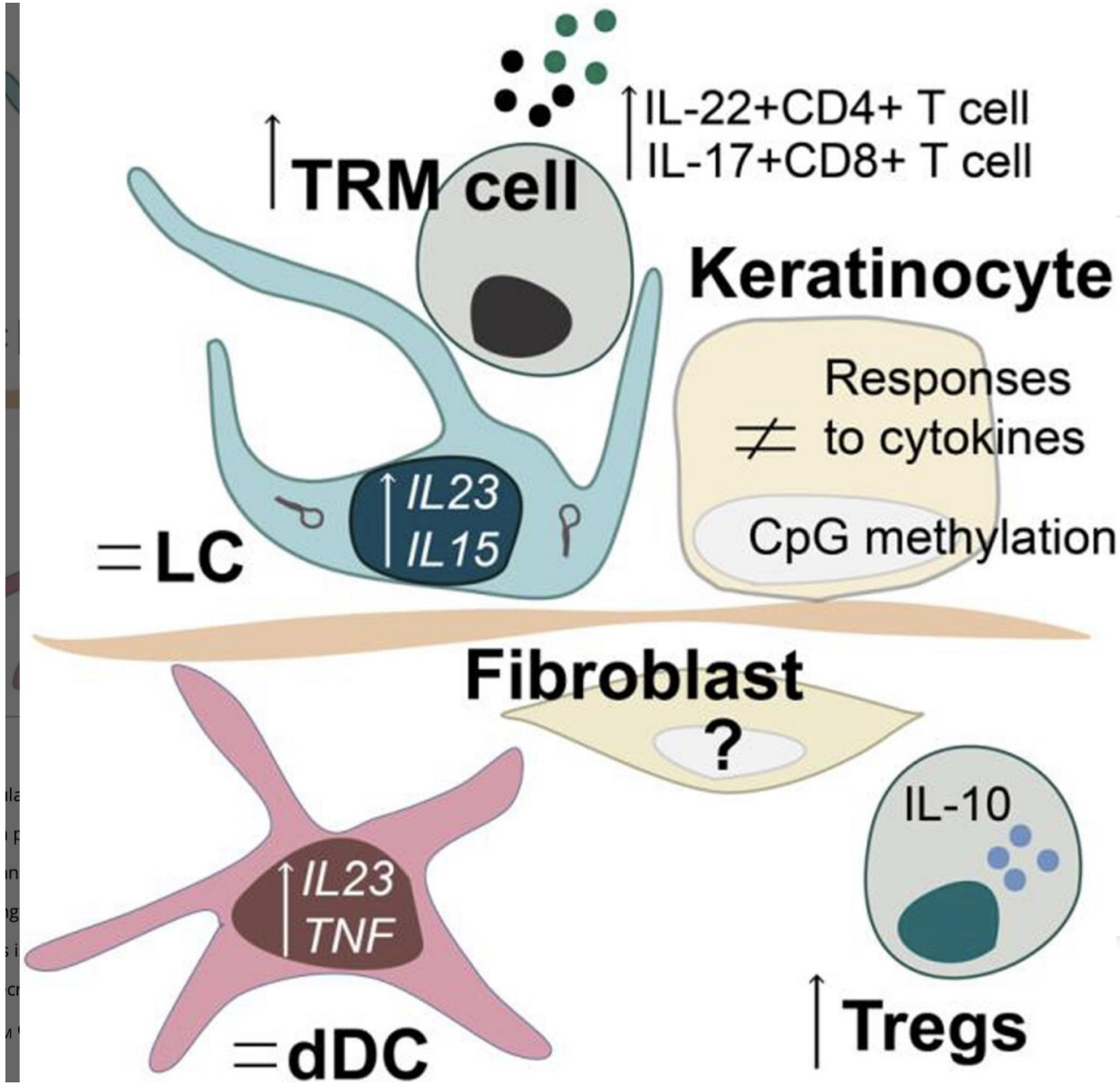
**Introduction** Biologics serve as a cornerstone in psoriasis treatment, with low disease activity or sometimes even clinical remission as a realistic treatment outcome. So far, it is unclear whether biologics should be tapered when this target is achieved. Dose tapering could offer potential benefits by decreasing side effects, the burden of repetitive injections and costs of biological therapy. However, clinical guidelines on dose tapering of biologicals in psoriasis patients are lacking. This scoping review was conducted to provide an overview of the current literature on dose tapering and offer guidance for clinicians in daily clinical practice.

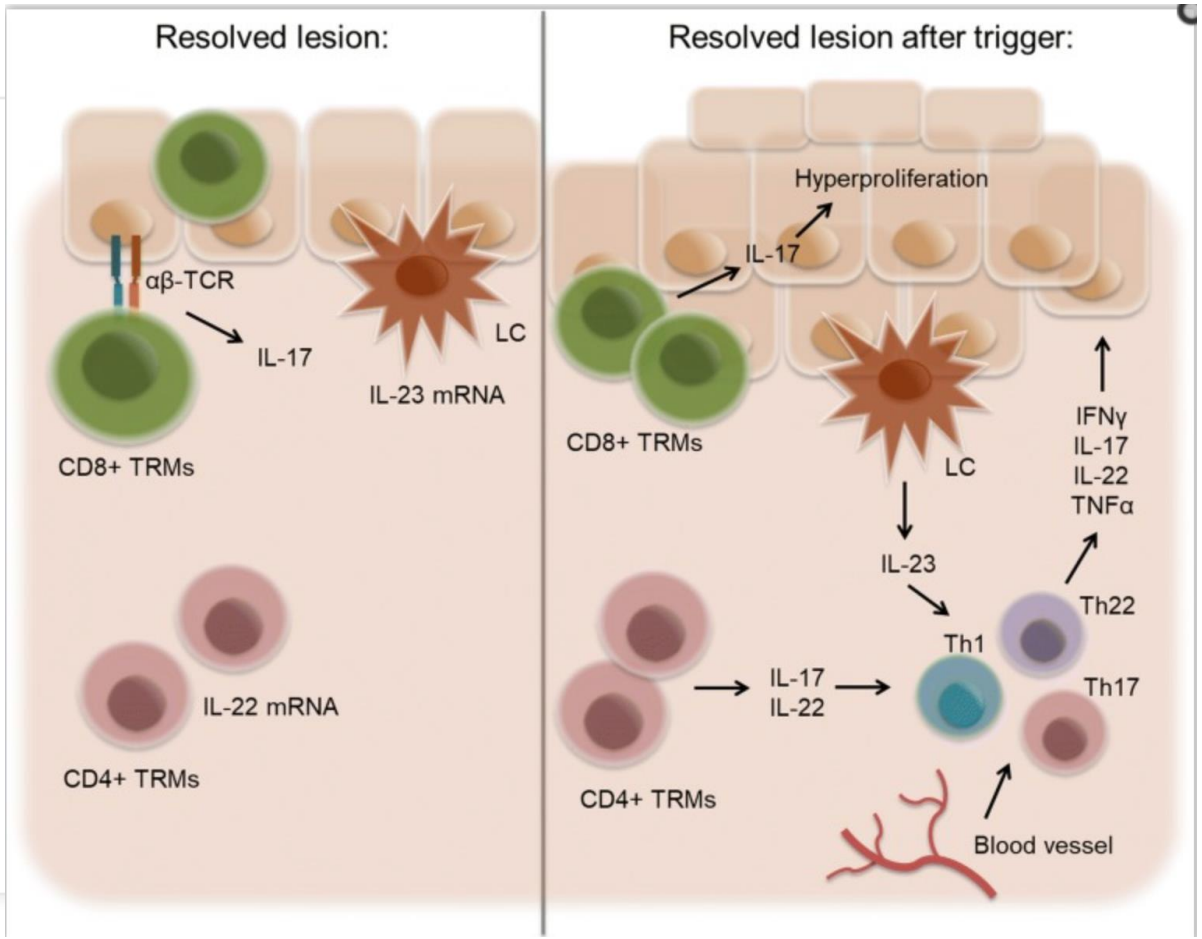
**Methods** Dose tapering is defined as the administration of a lower dose per administration, or the prolongation of the regular dose interval, after initial treatment according to the standard dosing. Four electronic databases (PubMed, EMBASE, Cochrane, and Web of Science) were systematically searched for literature on tapering of biologics in adult patients with psoriasis from 1 January 2000.

**Results** We included 19 original articles on biologic tapering in psoriasis patients: four randomized controlled trials and 15 observational studies. Tapering eligibility criteria, tapering strategies, tapering outcomes, and recapture of response after relapse were assessed. Furthermore, the available evidence on possible predictors for successful tapering, and the effect of tapering on safety, quality of life and costs is summarized. The definition of low disease activity as a measure for tapering eligibility varied widely. Beside tapering criteria, tapering strategies were also heterogeneous. Of note, quality-of-life measurements were barely integrated in the evaluation of tapering outcomes. Literature on regaining response after relapse due to tapering was limited, but restored remission has been described. The included studies did not proclaim a significant effect of tapering on the occurrence of (severe) adverse events. Even though cost savings have been reported, no proper cost-effectiveness analysis has been conducted yet.

**Conclusion** Biologic tapering seems to be effective and safe in psoriasis patients with stable low disease activity or clinical remission. Available data on biologic dose tapering in patients with psoriasis are promising, but more research is warranted to fill the current gaps in knowledge.

# Ömür boyu remisyon mümkün mü?




Seminars in Immunopathology (2019) 41:633–644

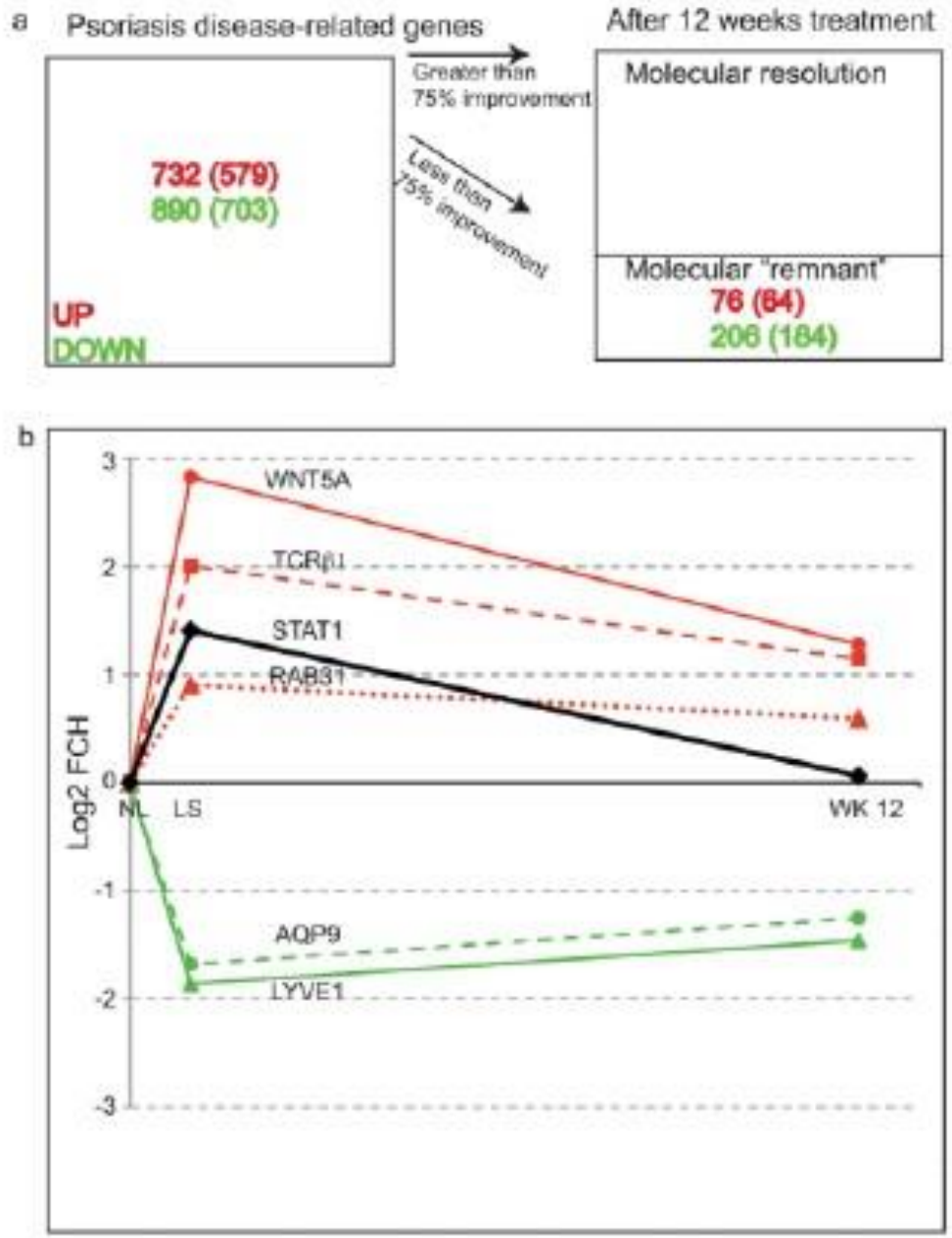
# Moleküler iz

- Moleküler skar-rezidüel genomik ekspresyon, subklinik inflamasyon-rekürrens?

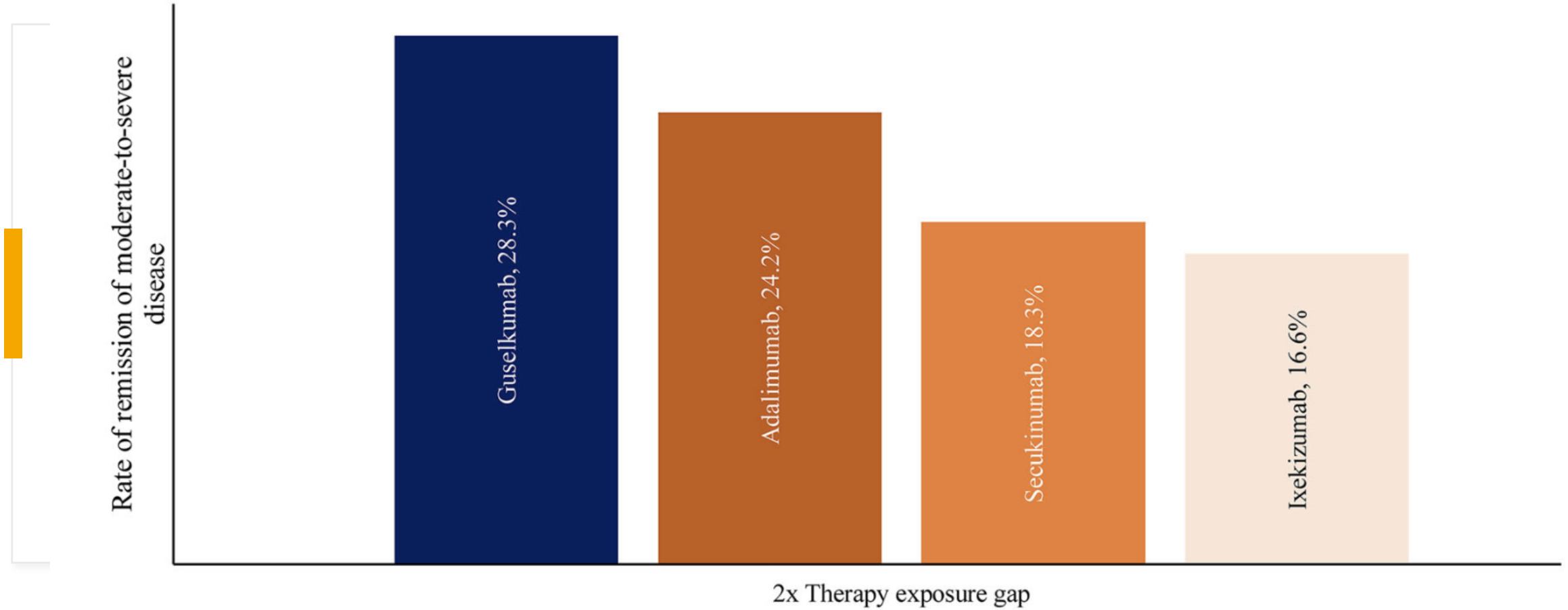
  - Tedavi olan lezyon yerlerinde epidermal reaksiyon gerilese de inflamasyon devam etmekte
  - Residuel dermal CD8+  T-hücreleri kalır
  - Derinin yapısal elemanları moleküler değişiklikler eksprese eder
  - Lenfatikler gibi deri yapısına ait değişikler tamamen normalleşmez

J Dermatolog Treat, 2015; 26(2): 103–112
Ann Rheum Dis. 2010;69:48–53.

*J Invest Dermatol*. 2011 February ; 131(2): 391–400.




*J Invest Dermatol*. 2011 February ; 131(2): 391–400.




Dermatol Ther (Heidelb) (2023) 13:1053–1068

# Paradoksal reaksiyonları nasıl yönetelim?

# Tanım

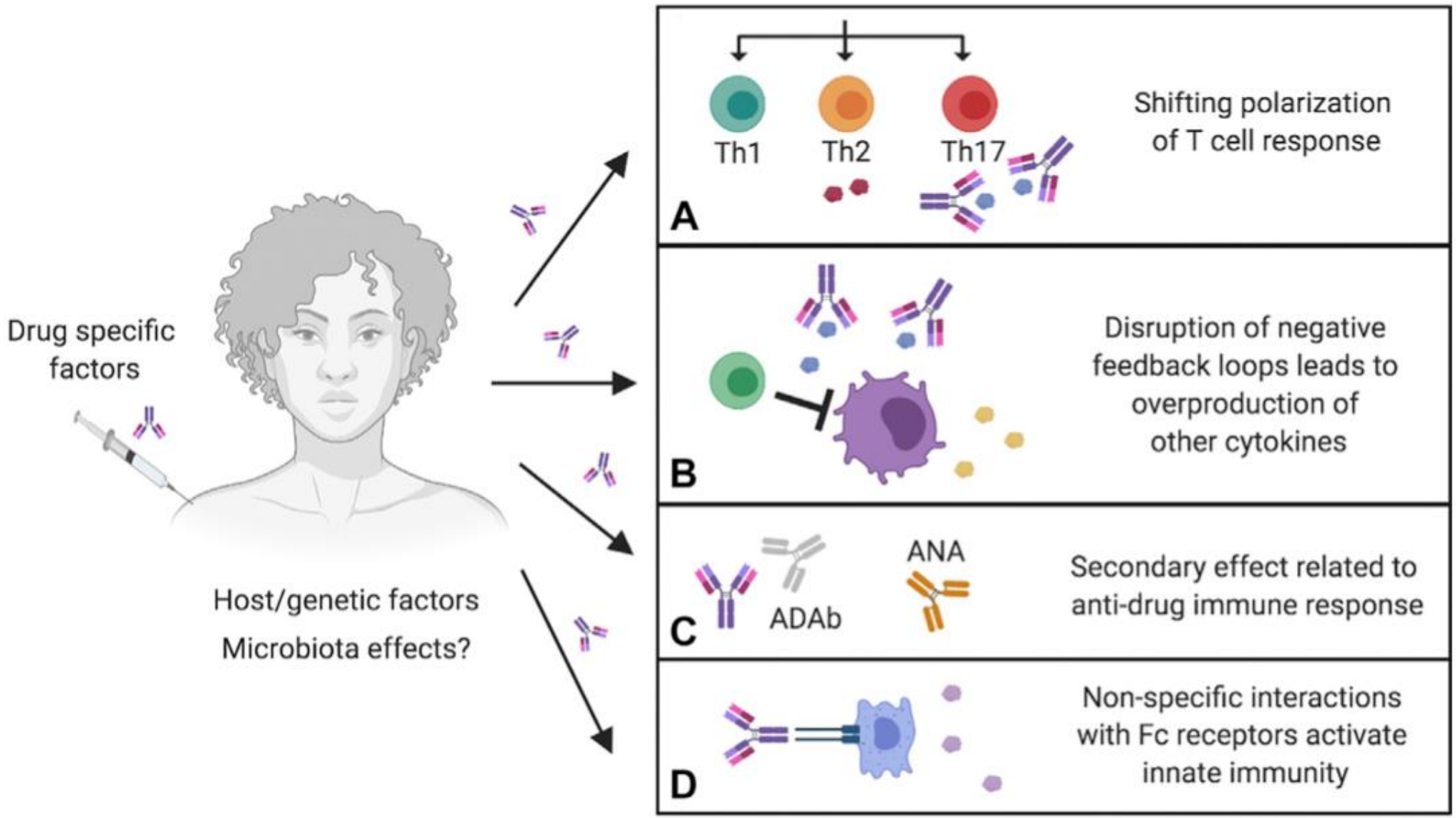
- Onaylı endikasyonu olan bir ilacın paradoksal etkisi beklenin aksine bir yanıt görüldüğünde tanımlanır: enfeksiyon kaynaklı olmayan bir inflamasyon gelişimi veya hastalığın alevlenmesi ya da ortaya çıkması
  - Altta yatan bir enfeksiyon veya gizli bir enfeksiyon aktivasyonu olmamalı
  - Biyolojik tetikli bir otoimmün olay olmamalı
  - Malign değişim olmamalı
  - Hastalık aktivitesinde artış olmamalı

# Tanım

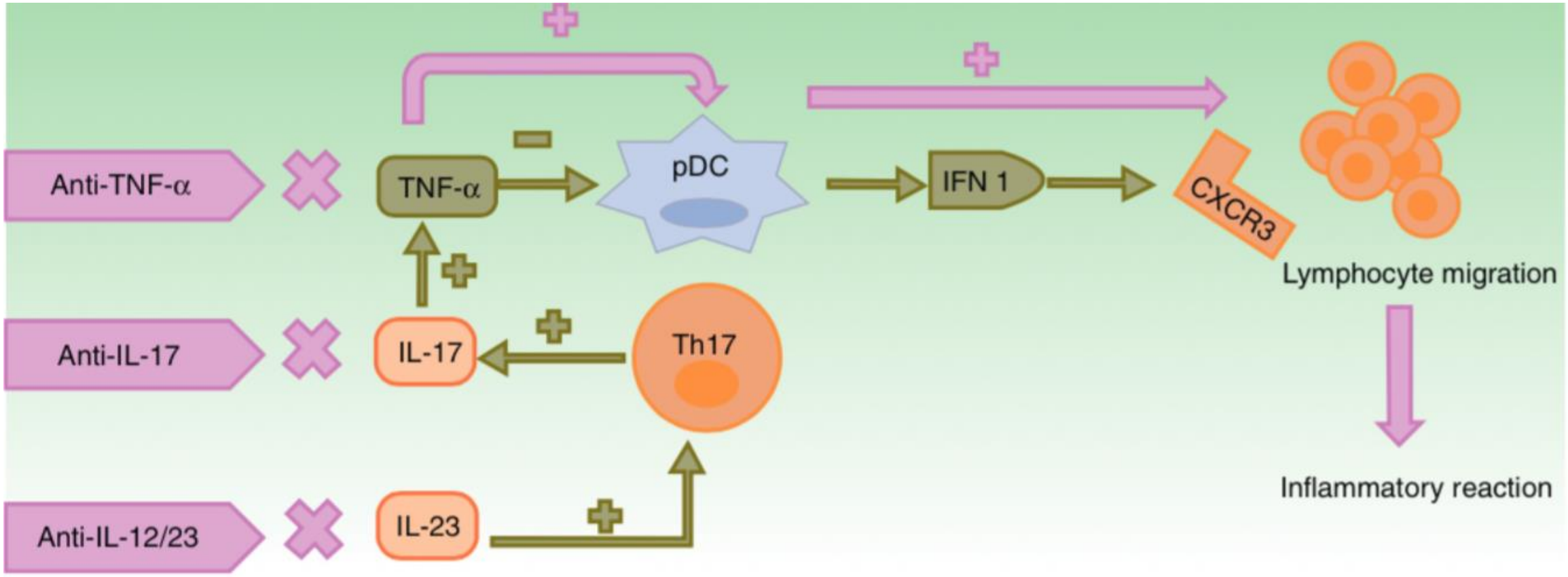
- İmmünolojik olarak açıklanabilen aberran reaksiyonlar
- Farklı organlarda  farklı şekillerde ortaya çıkabilir (psoriaziform deri reaksiyonları, artrit, artralji, granulomatöz deri ve akciğer bulguları, vaskülit, pyoderma gangrenozum, alopesi,, HS, vitiligo)
- Kinetiği farmakolojik yan etkilerden farklı
- 4 gün kadar erken olabileceği gibi 6-12 ay sonra da çıkabilir

# Tanım

- Biyomarkır veya fenotipik veya klinik belirlenmiş özellikler olmadığından ön görmez zordur
- Kliniği altta yatan hastalığın kötüleşmesi, klinik tipte değişim (plak Pso-püstüler Pso), farklı bir hastalığın ortaya çıkışı veya rekürrensi şeklinde olabilir
- İlk baştan anti-TNF ajanlarla ortaya çıkmış ancak IL12/23, IL-17 ve diğer biyolojiklerle de gelişmektedir


Drug specific factors
Host/genetic factors
Microbiota effects?
Th1
Th2
Th17
A
Shifting polarization of T cell response
B
Disruption of negative feedback loops leads to overproduction of other cytokines
ADAb
ANA
C
Secondary effect related to anti-drug immune response
D
Non-specific interactions with Fc receptors activate innate immunity

# Patogenez


Anti-TNF-α
TNF-α
pDC
IFN 1
CXCR3
Lymphocyte migration
Anti-IL-17
IL-17
Th17
Anti-IL-12/23
IL-23
Inflammatory reaction

# Sıklık

- Inflamatuvar hastalıklar nedeniyle de novo psoriasis gelişeme insidansı %0.6-% 5.3
- Ens ık sebep infliksimab %50 takiben adalimumab, etanersept, sertolizumab ve golimumab
- 2/3 den fazlası ilk yıl içinde

# Sıklık

- Palmo-plantar püstüler psoriasis (%56)
- Plak psoriasis(%50)
- Guttate psoriasis (%12)
- Çoklu presentasyon %15
- %92’sinde önceden psoriasis öyküsü yok

**Table I.** Summary of PRs from TNF-$\alpha$ inhibitors*

| Features | Psoriasis (N = 1051) | Eczema (N = 267) | Lupus-like (N = 216) | Sarcoidosis-like (N = 91) | Alopecia areata (N = 66) | Vitiligo (N = 60) | Hidradenitis suppurativa (N = 37) | Lichenoid (N = 33) | Granuloma annulare (N = 14) | Bullous pemphigoid (N = 13) | Dermatomyositis (N = 11) | Pyoderma gangrenosum (N = 10) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Demographic characteristics | | | | | | | n = 37 | n = 30 | n = 11 | n = 13 | n = 11 | n = 10 |
| Female sex, % | 59, n = 926 | 56, n = 68 | 81, n = 102 | 61, n = 90 | 49, n = 63 | 37, n = 38 | 81 | 60 | 82 | 61.5 | 73 | 70 |
| Age, y, mean (range) | 42.2 (8-83), n = 684 | 44.6 (15-83), n = 35 | 42 (14-78), n = 80 | 48.2 (7-81), n = 89 | 37.4 (20-69), n = 58 | 49 (24-83), n = 14 | 35 (17-57) | 47.2 (8-71) | 44.5 (23-76) | 62.9 (45-81) | 41.2 (29-52) | 49.2 (40-58) |
| Drug indication, % | n = 985 | n = 240 | n = 205 | n = 91 | n = 66 | n = 40 | n = 37 | n = 33 | n = 14 | n = 13 | n = 11 | n = 10 |
| Psoriasis/psoriatic arthritis | 5.5 | 5 | 1 | 14 | 29 | 7.5 | 11 | 30 | 7 | 31 | 9 | 40 |
| Crohn's disease | 39 | 18 | 35 | — | 15 | 22.5 | 49 | 12 | — | — | 9 | — |
| Ulcerative colitis/ indeterminant colitis | 7 | 4 | 8 | — | 1.5 | 10 | — | 6 | — | 31 | — | 20 |
| IBD (unspecified) | 10 | 65 | 4 | 7 | 10.5 | — | — | 9 | 7 | — | — | — |
| Ankylosing spondylitis | 17 | 3 | 0.5 | 17 | 8 | 47.5 | 13.5 | 6 | — | — | — | — |
| Rheumatoid arthritis | 15 | 5 | 49 | 57 | 15 | 7.5 | 13.5 | 24 | 79 | 38 | 54.5 | 30 |
| [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | | [illegible] | [illegible] | | | [illegible] | [illegible] |
| Drug, % | n = 971 | n = 102 | n = 207 | n = 91 | n = 61 | n = 60 | n = 37 | n = 30 | n = 13 | n = 13 | n = 11 | n = 10 |
| Infliximab | 56.6 | 68.5 | 56 | 18 | 38 | 42 | 24 | 47 | 38.5 | 23 | — | 50 |
| Adalimumab | 30 | 24.5 | 25 | 23 | 41 | 43 | 62 | 20 | 54 | 54 | 54.5 | 30 |
| Etanercept | 11 | 3 | 15.5 | 59 | 21 | 12 | 13.5 | 30 | 15 | 23 | 36 | 10 |
| Certolizumab | 2 | 3 | 3 | — | — | 3 | — | — | — | — | — | — |
| Golimumab | 0.2 | 1 | — | — | — | — | — | — | — | — | — | 10 |
| Adalimumab/ etanercept | — | — | — | — | — | — | — | — | — | — | 9 | — |
| Lenercept | — | — | — | — | — | — | — | 3 | — | — | — | — |
| Time to onset, mo | n = 539 | n = 38 | n = 89 | n = 87 | n = 61 | n = 14 | n = 37 | n = 28 | n = 11 | n = 13 | n = 11 | n = 10 |
| Mean (range) | 16.4 (0-148) | 22.7 (1-54) | 14.6 (0-72) | 24.6 (1-84) | 16.7 (0.04-89) | 7.5 (1.5-27) | 22.6 (1-72) | 6.9 (0.5-48) | 8.5 (1-22) | 9.3 (0.1-36) | 15.5 (0.5-72) | 10.9 (1.5-48) |

J Am Acad Dermatol https://doi.org/10.1016/j.jaad.2020.12.01

**Table II.** Summary of PRs from IL-12/IL-23 (p40) and IL-23 (p19) inhibitors*

| | IL-12/23 | | | | | | | | | | | | IL-23 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Features | Vitiligo (N = 15) | Psoriasis (N = 9) | Alopecia areata (N = 5) | Eczema (N = 4) | Bullous pemphigoid (N = 4) | Sarcoidosis-like (N = 3) | Lupus-like (N = 3) | Morphea (N = 2) | Hidradenitis suppurativa (N = 1) | Frontal fibrosing alopecia (N = 1) | Wells syndrome (N = 1) | Erythema annulare centrifugum (N = 1) | Linear IgA bullous dermatosis (N = 1) | Eczema (N = 2) |
| Demographic characteristics | NA | n = 9 | n = 5 | n = 4 | n = 4 | n = 3 | n = 3 | n = 2 | n = 1 | n = 1 | n = 1 | n = 1 | n = 1 | n = 2 |
| Female sex, % | NA | 67 | 0 | 50 | 25 | 67 | 67 | 100 | 100 | 100 | 0 | 0 | 100 | 0 |
| Age, y, mean (range) | NA | 41.7 (24-58) | 43 (32-55) | 50.3 (21-82) | 64.8 (58-76) | 48 (42-52) | 50.3 (28-68) | 55.5 (48-63) | 19 | 62 | 58 | 55 | 31 | 43.5 (40-47) |
| Drug indication, % | NA | n = 9 | n = 5 | n = 4 | n = 4 | n = 3 | n = 3 | n = 2 | n = 1 | n = 1 | n = 1 | n = 1 | n = 1 | n = 2 |
| Psoriasis/ psoriatic arthritis | NA | 67 | 100 | 100 | 75 | 100 | 100 | 50 | 100 | 100 | 100 | 100 | 100 | — |
| Crohn's disease | NA | 22 | — | — | — | — | — | — | — | — | — | — | — | — |
| Ankylosing spondylitis | NA | 11 | — | — | — | — | — | — | — | — | — | — | — | — |
| Ulcerative colitis | NA | — | — | — | — | — | — | 50 | — | — | — | — | — | — |
| Psoriatic onycho-pachydermo-periostitis | NA | — | — | — | 25 | — | — | — | — | — | — | — | — | — |
| Psoriasis | NA | — | — | — | — | — | — | — | — | — | — | — | — | 100 |
| Drug, % | n = 15 | n = 9 | n = 5 | n = 4 | n = 4 | n = 3 | n = 3 | n = 2 | n = 1 | n = 1 | n = 1 | n = 1 | n = 1 | n = 2 |
| Ustekinumab | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | — |
| Guselkumab | — | — | — | — | — | — | — | — | — | — | — | — | — | 100 |
| Time to onset, mo | NA | n = 9 | n = 5 | n = 2 | n = 4 | n = 2 | n = 3 | n = 2 | n = 1 | n = 1 | n = 1 | n = 1 | n = 1 | n = 2 |
| Mean (range) | NA | 3.1 (0.07-15) | 6.2 (3-10) | 1.25 (1-1.5) | 7.8 (1-18) | 13 (12-14) | 8.8 (1-24) | 9 (6-12) | 12 | 5 | 0.25 | 3 | 2 | 2.75 (2.5-3) |

IL, Interleukin; NA, not applicable; PR, paradoxical reaction.

**Table III.** Summary of PRs from IL-17 inhibitors*

| Features | Eczema (N = 26) | Psoriasis (N = 15) | Sarcoidosis-like (N = 5) | Alopecia areata (N = 4) | Pyoderma gangrenosum (N = 4) | Lichenoid (N = 4) | Behcet syndrome (N = 3) | Hidradenitis suppurativa (N = 3) | Granuloma annulare (N = 2) | Lupus-like (N = 2) | Vitiligo (N = 2) | Erythema multiforme (N = 1) | Bullous pemphigoid (N = 1) | Pemphigus (N = 1) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Demographic characteristics | n = 15 | n = 15 | n = 5 | n = 4 | n = 4, n = 3 | n = 4 | n = 3 | n = 3 | n = 2 | n = 2 | n = 1 | n = 1 | n = 1 | n = 1 |
| Female sex, % | 40 | 67 | 40 | 50 | 100 | 25 | 0 | 0 | 100 | 0 | 0 | 100 | 100 | 100 |
| Age, y, mean (range) | 51.2 (23-89) | 49 (22-76) | 51.6 (45-61) | 53.3 (40-70) | 42.3 (38-47) | 57.8 (45-74) | 39.7 (29-56) | 50.7 (46-58) | 64.5 (60-69) | 50.5 (39-62) | 48 | 65 | 65 | 41 |
| Drug indication, % | n = 26 | n = 15 | n = 5 | n = 4 | n = 4 | n = 4 | n = 3 | n = 3 | n = 2 | n = 2 | n = 1 | n = 1 | n = 1 | n = 1 |
| Psoriasis/ psoriatic arthritis | 100 | 93 | 100 | 100 | 100 | 75 | 33 | 100 | 100 | 100 | 100 | — | 100 | — |
| Ankylosing spondylitis | — | 7 | — | — | — | — | 33 | — | — | — | — | 100 | — | — |
| Rheumatoid arthritis | — | — | — | — | — | — | — | — | — | — | — | — | — | 100 |
| Ankylosing spondylitis/ Behcet syndrome | — | — | — | — | — | — | 33 | — | — | — | — | — | — | — |
| Rheumatoid arthritis/ psoriasis | — | — | — | — | — | 25 | — | — | — | — | — | — | — | — |
| Drug, % | n = 26 | n = 15 | n = 5 | n = 4 | n = 4 | n = 4 | n = 3 | n = 3 | n = 2 | n = 2 | n = 1 | n = 1 | n = 1 | n = 1 |
| Secukinumab | 42 | 60 | 40 | 50 | 75 | 100 | 100 | 67 | 100 | 100 | 50 | 100 | 100 | 100 |
| Ixekizumab | 58 | 20 | 60 | 25 | — | — | — | 33 | — | — | 50 | — | — | — |
| Brodalumab | — | 20 | — | 25 | 25 | — | — | — | — | — | — | — | — | — |
| Time to onset, mo | n = 15 | n = 12 | n = 2 | n = 4 | n = 4 | n = 4 | n = 3 | n = 3 | n = 2 | n = 2 | n = 1 | NA | n = 1 | n = 1 |
| Mean (range) | 3.8 (0.14-8) | 4.9 (0.75-16) | 19.6 (3.25-36) | 6.8 (2-13) | 4.2 (0.5-10) | 3.6 (<0.25-8) | 1.25 (0.75-2) | 3.2 (0.5-6) | 3.25 (0.5-6) | 1.5 (1-2) | 3 | NA | 0.25 | 3 |

# Histopatoloji

- Paradoksal psoriasis histolojisi klasik psoriasisden farklı değil
- Eozinofil veya plazma hücresi varsa yardımcı

# Olgu Sunumu

- **E.Ö**

30 y, ♂

Lise mezunu

İşçi (1997'den beri Bosch)

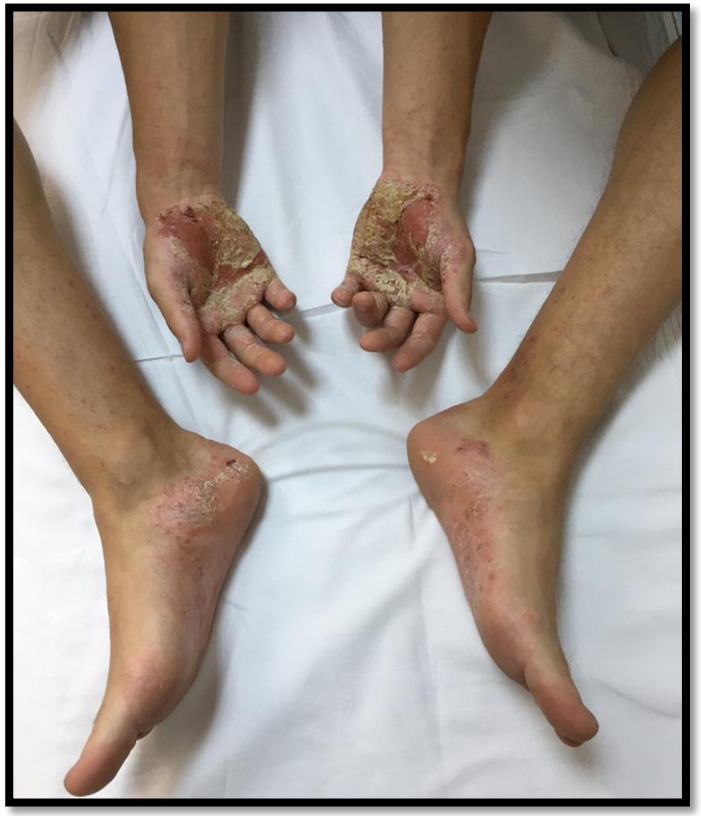
Evli, 2 çocuk

Kemalpaşa'lı Mudanya da yaşıyor

- Hastanemize ilk başvuru Kasım 2010

# Olgu Sunumu

- **Şikayeti:**
- 3 aydır el ve ayaklarda eritemli kepekli plaklar



# Olgu Sunumu

**Özgeçmiş:**

**Ülseratif kolit** (7-8 kez kanlı ishal)**Mart 2010**

- Salofalk 4x2
- Salofalk lavman 1x1
- Budenofalk caps 1x1

**Ankilozan spondilit** (3,5 yıldır bel/sırt ağrısı+TL hassasiyet)**Eylül 2011**

- Lomber MR: Bilateral G II Sakroileit, AS ile uyumlu
- 120 mg/gün 3 gün pulse steroid+ İnfliksimab 400 mg/gün**Ekim 2011**

**Üveit****2011**

- Topikal tedavi

# Olgu Sunumu

- **Alışkanlık:**

Sigara: 1 paket/gün/10yıl

Alkol kullanımı yok

Madde kullanımı yok

- **Soygeçmiş:**

Ailede psoriazis hikayesi yok

# Olgu Sunumu

- **Fizik Muayene:**

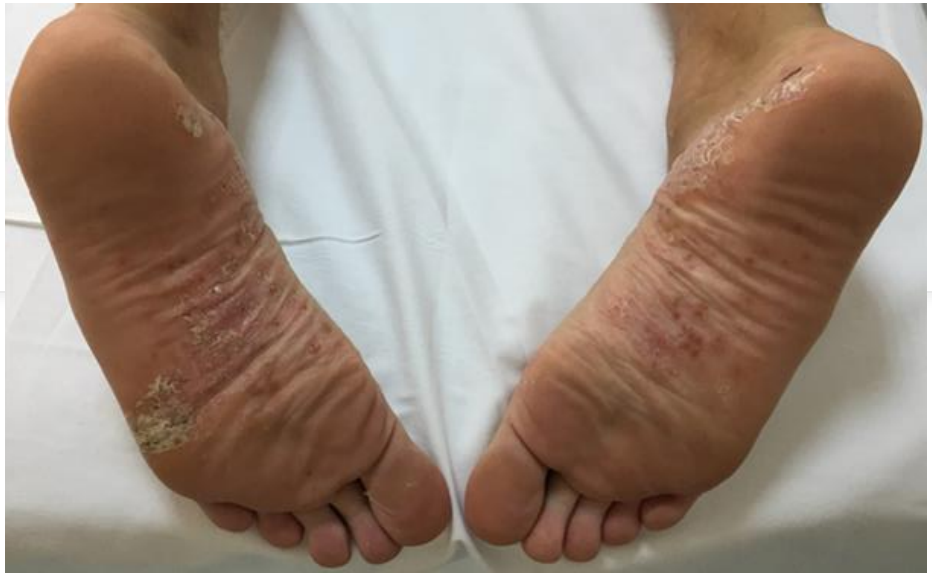
  **<u>Dermatolojik muayene:</u>**

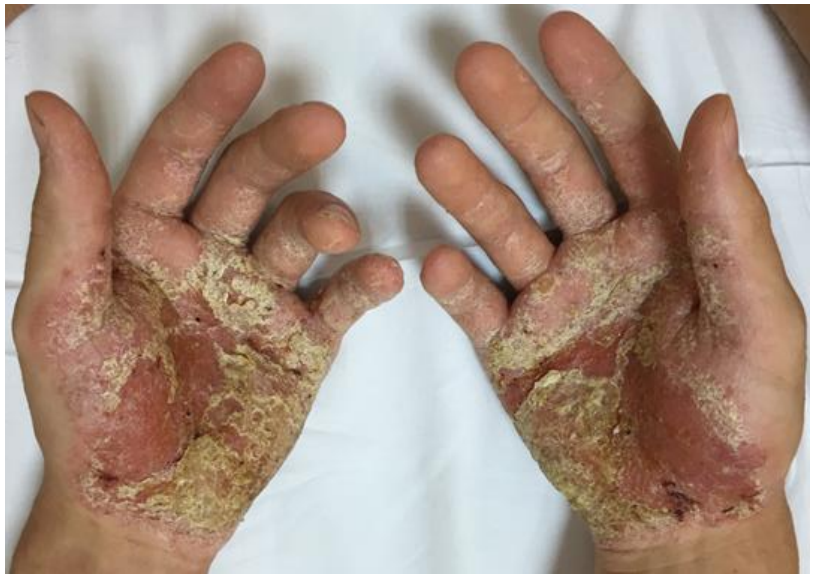
  El/ayaklarda eritemli skuamlı, özellikle fissüre ağrılı plaklar

  Kaşlarda kepeklenme

  Plantar püstüller

  Onikoliz

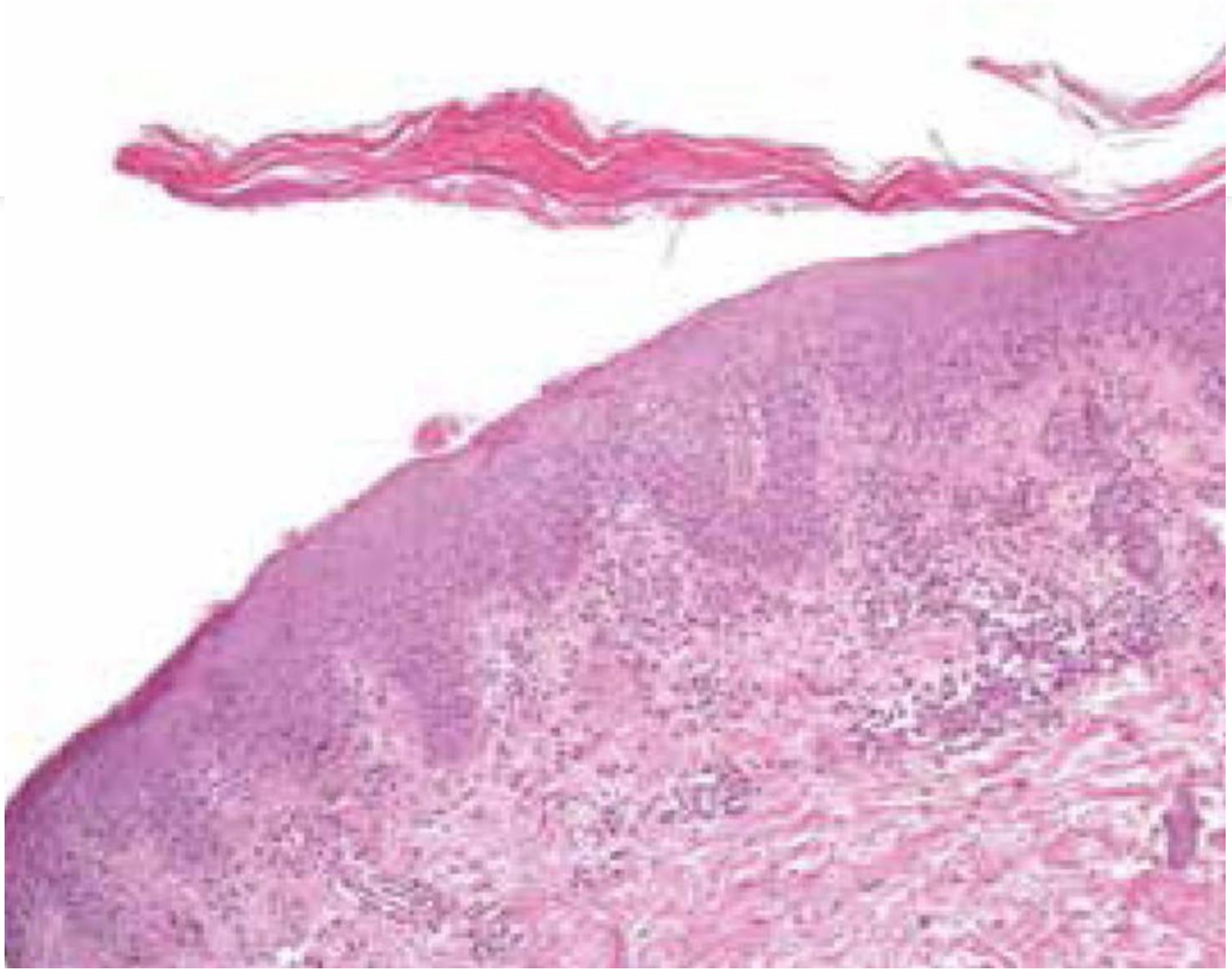




# Olgu Sunumu

- **Histopatoloji:**

  Kronik
  Psöriaziform
  Dermatit



# Prognoz

- Tedaviye devam edilse de tam gerileme %32.9

  kısmi gerileme %57.3
- Tam remisyon için ilacın kesilmesi sıklıkla gerekebilir
- %44.9'unda başka bir sınıf içi ilaca geçmekle iyileşme görülmez

  %9'unda kısmi iyileşme elde edilir
- Genetik yatkın bireylerde farklı bir sınıfla ilaç değişimi ya da ilaç kesilmesi yapılsa da reaksiyonlar tekrarlayabilir
- İki-üç kez PR geçiren vaka bildirileri mevcut

# Teşekkürler…..