BİLİMSEL MAKALE

Nasıl Yazmalı
Hangi Dergiye
Editöre Mektup
Derleme

Prof. Dr. Murat BOZLU

Mersin Üniversitesi Tıp Fakültesi, Üroloji Anabilim Dalı

TÜAK-Geleceğin Akademisyenleri Akademik Gelişim Sempozyumu

7 Nisan 2019 - İSTANBUL

- **İyi haber…**

- **Kötü haber…**

BU TOPLANTIYA NEDEN GELDİK?

- Mola…
- Bilimsel aktiviteleri seviyorum
- Zorla geldim
- Aklına bile gelmez…

BU TOPLANTIYA NEDEN GELDİK?

- **Ret: We regret to inform you that…**
- **Kabul: It is a pleasure to accept your manuscript entitled…**

SUNU PLANI

- Niçin makale yazmak istiyorum?
- Başlamadan önce…
- Uygun dergi seçimi
- Yazarlık kriterleri
- Editöre Mektup
- Derleme Makalesi
- Makale bölümleri
- Özet !

Tıbbi Yazılar

- Araştırma makalesi
- Derleme
- Olgu sunumu
- Editöre mektup

Makale Niçin Yazılır?

- Üstünlük sağlamak
  - Usta-çırak ilişkisi şeklinde öğreniliyor
- Güç gösterisi
- Kendini duyurmak
- Tez kabusu
- Akademik yükselme kriterleri
- Toplantı ve kurslar

A	**KİTAPLAR**	
A. 1.	**Uluslararası**	
A.1.1.	Kitap yazarlığı	**60**
A.1.2.	Kitap çevirisi	**40**
A.1.3.	Kitap içinde bölüm/makale yazarlığı	**40/20**
A.2.	**Ulusal**	
A.2.1.	Kitap yazarlığı	**40**
A.2.2.	Kitap içinde bölüm / makale yazarlığı	**30/15**
A.2.3.	Kitap içinde bölüm / makale çevirisi	**20/10**
B	**MAKALELER**	
B.1.	**SCI, SCI-EXP. SSCI, AHCI kapsamında olan dergilerde**	
B.1.1.	Araştırma makalesi	**30**
B.1.2.	Derleme	**25**
B.1.3.	Vaka takdimi, teknik not, kitap eleştirisi	**15**
B.1.4	Editöre mektup vb	**10**
B.2.	**En az bir uluslararası alan indeksi kapsamında olan dergilerde**	
B.2.1.	Araştırma makalesi	**25**
B.2.2.	Derleme	**20**
B.2.3.	Vaka takdimi, teknik not, kitap eleştirisi	**10**
B.2.4.	Editöre mektup vb	**5**
B.3.	**Ulusal hakemli dergilerde**	
B.3.1.	Araştırma makalesi	**15**
B.3.2.	Derleme	**10**
B.3.3.	Vaka takdimi, teknik not, kitap eleştirisi, makale çevirisi	**8**
B.3.4.	Editöre mektup vb	**4**

Tablo 10 - Sağlık Bilimleri Temel Alanı

a) SSCI, SCI, SCI- Expanded veya AHCI kapsamındaki dergilerde yayımlanmış özgün araştırma makalesi	**20**
b) Uluslararası alan indeksleri tarafından taranan (a bendinde belirtilen indeksler dışındaki indekslerde yer alan) dergilerde yayımlanmış özgün araştırma makalesi	**10**
c) a bendi kapsamındaki dergilerde yayımlanan vak'a takdimi	**5**
Bu maddenin a bendi kapsamında en az bir makalede ***başlıca yazar*** *olmak kaydıyla* ***en az 40 puan*** *alınmalıdır.*	

Makale Niçin Yazılır?

- 17. Yüzyılın sonuna kadar bilimsel çalışmalar gönüllülük ilkesiyle yapılıyordu.
- 18. yüzyıldan sonra ülke stratejisi
  - Üniversiteler
  - Araştırma kuruluşları
- Araştırma, bilimsel merak ve bilginin paylaşımı
- Yayınsız bilim ölüdür (Gerard Piel)

Başlamadan önce…

- Ne yapmak istiyorsunuz?
- Bu konuda kimler ne yapmış?
- Siz ne mesaj vermek istiyorsunuz?
- Yeni sonuçlarınız/katkınız var mı?
- Nasıl sunacaksınız?

Dergi Seçimi

- SCI ve SCI-Expanded
  - İlk değerlendirmede % 60-70 ret
  - Kabul oranı % 25
- 2016 ESCI
- Uygun dergiye gönderilmeme = Ret
- Kabul edilme ve basım arasında geçen süre
- Derginin erişim durumu
  - Açık erişim

Makale …

I. Konu ne olursa olsun etki faktörü en yüksek herhangi bir dergiye gönderilmelidir

II. “Yazarlara bilgi” sayfasındaki dergi kapsamı açıklamaları dikkate alınmalıdır

III. Aynı anda birkaç dergiye gönderilmeli ve olumlu yanıt veren seçilmelidir

Dergi Seçimi

- Yazar bilgi sayfası
  - Makalenin içeriği ve derginin kapsamı
  - Derginin yazım kuralları
- Makaleniz sonuçlanana kadar başka dergiye göndermeyiniz
- Dergi metrikleri
  - Etki faktörü

Dergi Seçimi

- BJU INTERNATIONAL Monthly
- CANADIAN JOURNAL OF UROLOGY Bimonthly
- EUROPEAN UROLOGY Monthly
- INTERNATIONAL JOURNAL OF UROLOGY Monthly
- INT. UROLOGY AND NEPHROLOGY Bimonthly
- JOURNAL OF UROLOGY Monthly
- SCANDINAVIAN JOURNAL OF UROLOGY Bimonthly
- UROLOGY Monthly
- WORLD JOURNAL OF UROLOGY Quarterly

PREDATÖR (Şaibeli/Yağmacı) Dergi

Mersin Üniversitesi - GENEL SEKRETERLİK
Tarih: 27/02/2019 09:23
Sayı: 78635392-604.02-E.00000980581

E.00000980581

T.C.
MERSİN ÜNİVERSİTESİ REKTÖRLÜĞÜ
Genel Sekreterlik

Sayı : 78635392-604.02
Konu : Predatör Dergiler

DAĞITIM

Son dönemlerde yayımlanan bilimsel makalelerin yer aldığı, bazı dergilerin şaibeli (predatör) olduğu değerlendirilmektedir.

Bu konu Üniversitelerarası Kurul tarafından da değerlendrilmiş olup, gerekli hassasiyetin gösterilmesi, konu ile ilgili aşağıda belirtilen açıklamalara dikkat edilmesi hususunda gereğini rica ederim.

e-imzalıdır
Prof. Dr. Ahmet ÇAMSARI
Rektör

PREDATÖR (Şaibeli/Yağmacı) Dergi

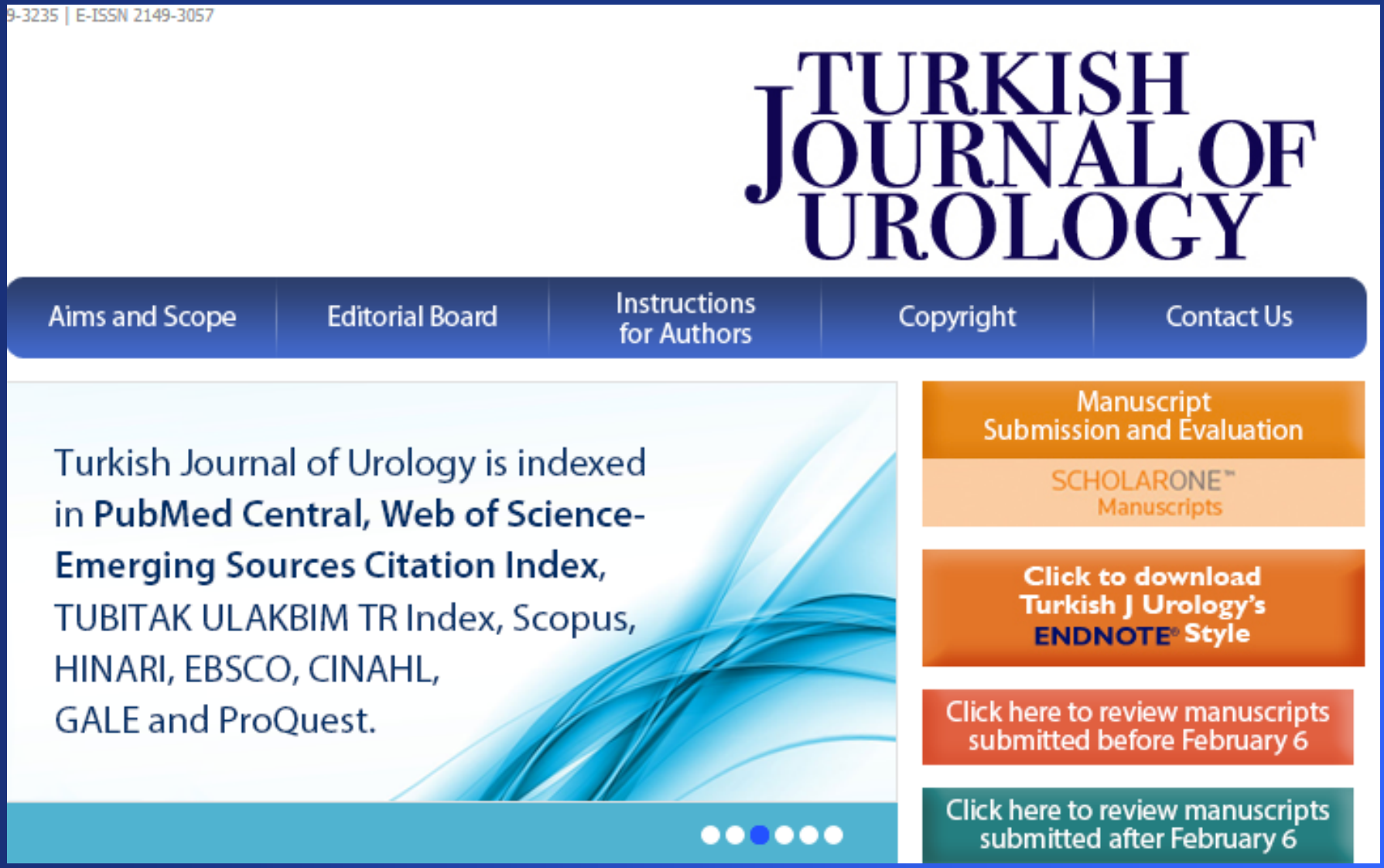
Predatör (Şaibeli) Dergilerin Ortak Özellikleri

1. İlan ettiği konu dışında yazılara da yer vermesi.
2. Web sitesi, yazım ve dilbilgisi hataları içermesi.
3. The Index Copernicus Değeri web sitesnde tanıtılıyor olması.
4. Yayın ilkeleri açıklmasının eksik olması.
5. Makalelerin e-posta ile gönderilmesinin talep edilmesi.
6. Hızlı yayınlama sözü vermesi.
7. Geri çekme politiksanın olmaması.
8. Dergi içeriğinin dijital olarak korunup korunmadığı ve nasıl yapılacağı bilgisi olmaması.
9. Açık erişime sahip olduğunu iddia eden ya da yayımlanan araştırmanın telif hakkını saklayan ya da telif hakkı koruması politikası olmaması.
10. dergi hakem sürecinin gerçekçi işletilmemesi, hakem görüş ve önerilerinin yazar ile paylaşılmaması.
11. Gönderilen makalelerin hakem sürecini tamamlamdan, makale yayımlama ücreti talep ederek yayımlama sözü vermesi.

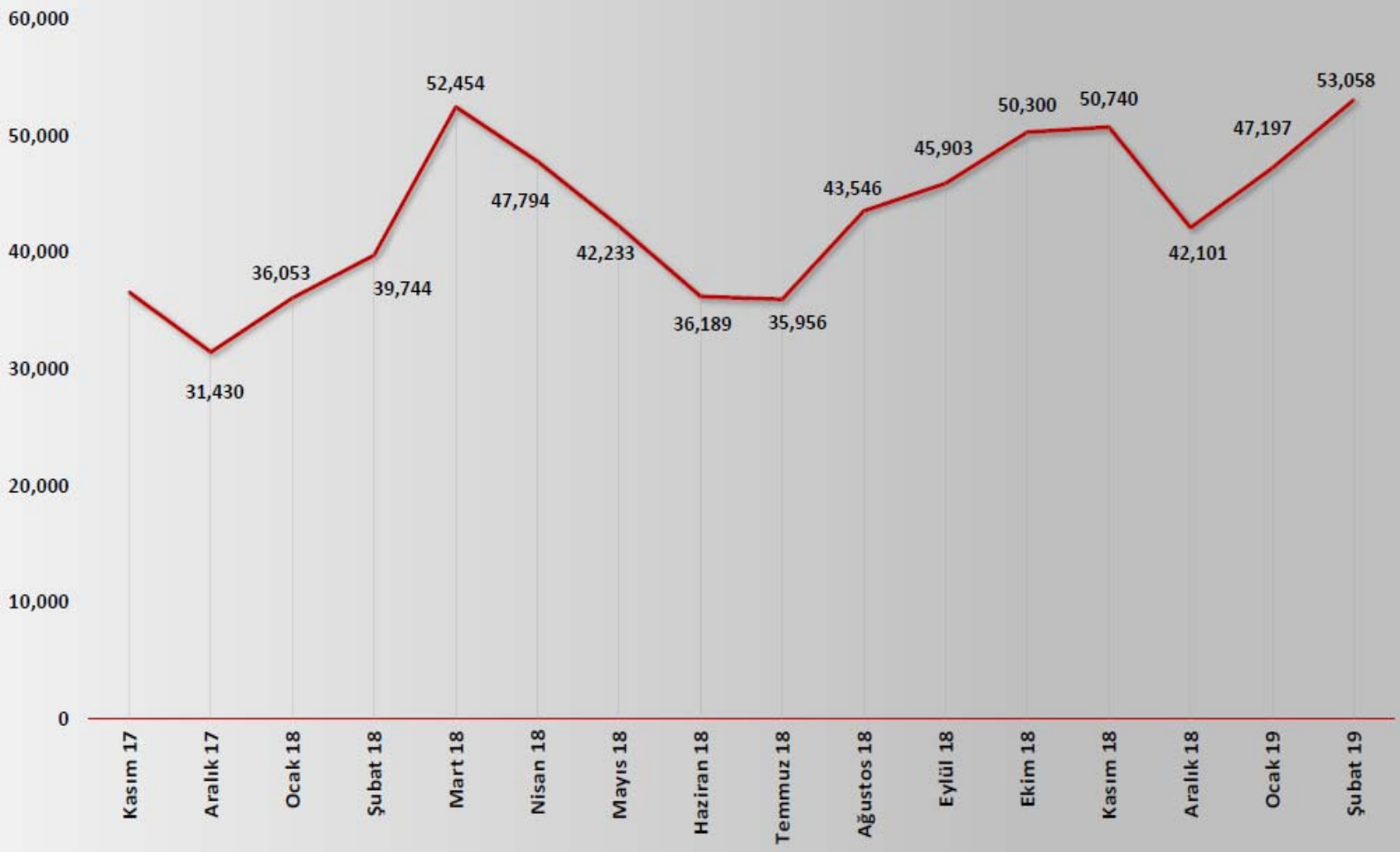
PREDATÖR (Şaibeli/Yağmacı) Dergi

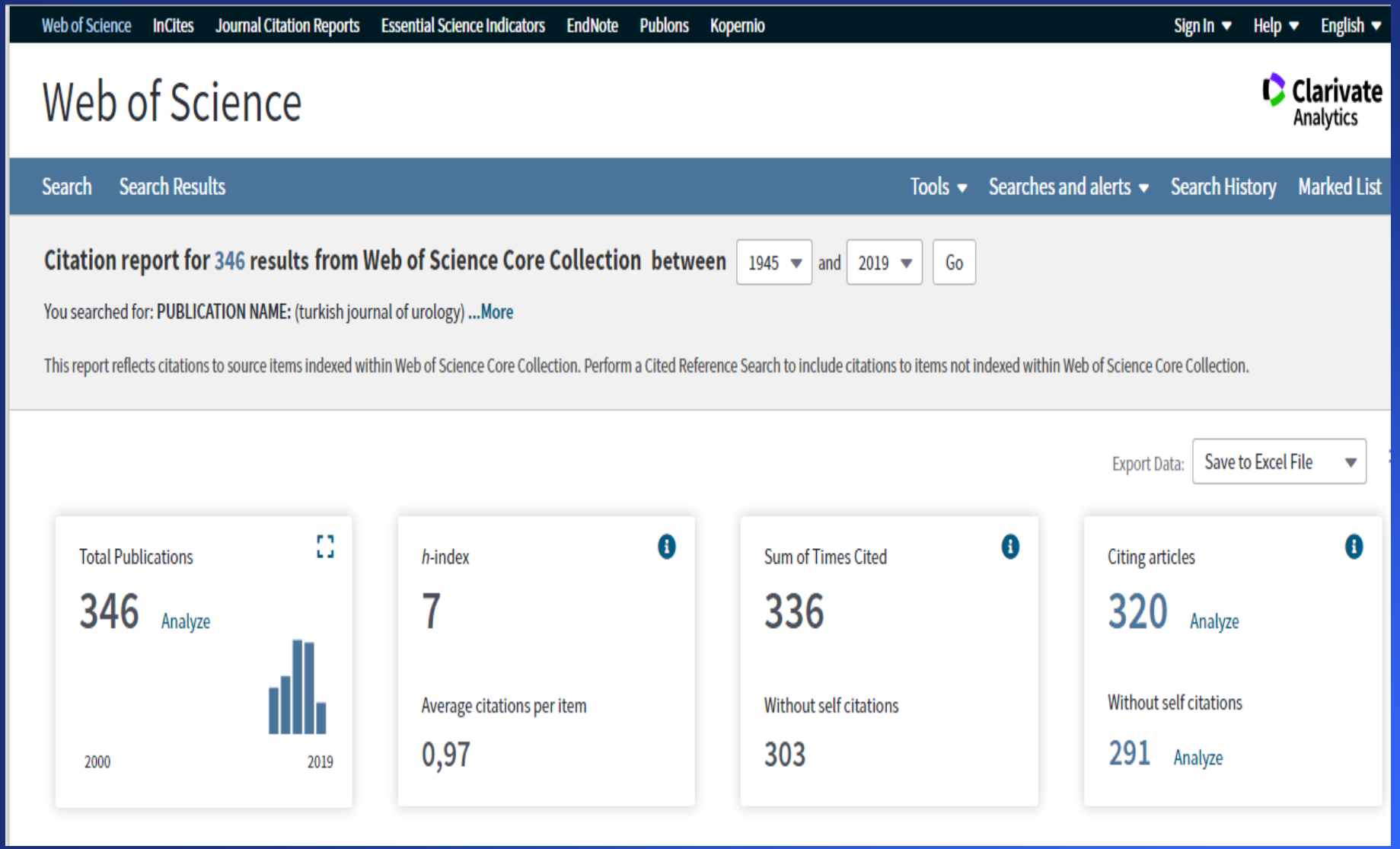
Bir çok predatör dergi, DPAJ ve JCR Ana Listesi tarafından indekslendiklerini iddia etmektedir. Dergilerin beyanlarını kontrol etmelisiniz. Bir dergi JCR ve/veya DOAJ tarafından indeksleniyor olması predatör (şaibeli) olmadığına dair kanıt sayılmamalıdır. Dergilerin bilimsel değerlendirilmesi aşamasında değerlendirmeyi yapacak olan akademisyen titizlikle araştırma yapmalıdır.

Dergi Seçimi



PubMed Central (Son 12 Ay)




Web of Science InCites Journal Citation Reports Essential Science Indicators EndNote Publons Kopernio
Sign In Help English
Web of Science
Clarivate Analytics
Search Search Results
Tools Searches and alerts Search History Marked List
Citation report for 346 results from Web of Science Core Collection between 1945 and 2019 Go
You searched for: PUBLICATION NAME: (turkish journal of urology) ...More
This report reflects citations to source items indexed within Web of Science Core Collection. Perform a Cited Reference Search to include citations to items not indexed within Web of Science Core Collection.
Export Data: Save to Excel File
Total Publications
346 Analyze
2000
2019
h-index
7
Average citations per item
0,97
Sum of Times Cited
336
Without self citations
303
Citing articles
320 Analyze
Without self citations
291 Analyze

PubMed Central Top 25 Articles

	Görüntülenme Sayısı
How to write a discussion section?	6254
How to write a review article?	5171
How to write an introduction section of a scientific article?	4645
How to write a materials and methods section of a scientific article?	3704
How to write an editorial letter?	3512
How to clearly articulate results and construct tables and figures in a scientific paper?	1516
The role of vitamin D supplementation on erectile function	1134
Effects of ejaculation on serum prostate-specific antigen levels	976
Rarely seen complications of circumcision, and their management	788
Approach to bulbar urethral strictures: Which technique and when?	749
The role of probiotics in women with recurrent urinary tract infections	602
Post-prostatectomy incontinence: Etiology, evaluation, and management	447
Complications of transrectal ultrasound-guided 12-core prostate biopsy: a single center experience with 2049 patients	424
How to write a medical book chapter?	418
Nonsurgical treatment options in Peyronies Disease: 2016 update	417
Erectile dysfunction in the elderly male	414
How should prostate specific antigen be interpreted?	360
Score 3 prostate lesions: a gray zone for PI-RADS v2	313
Comparison of surgical and functional outcomes of open, laparoscopic and robotic pyeloplasty for the treatment of ureteropelvic junction obstruction	273
Is normal saline the best irrigation fluid to be used during percutaneous nephrolithotomy in renal failure patient? A prospective randomized controlled trial	265
Toxic effects of formaldehyde on the urinary system	259
Male infertility, azoozpermia and cryptozoospermia incidence among three infertility clinics in Turkey	240
2% Lidocaine gel or plain lubricating gel: Which one should be used in male flexible cystoscopy?	236
An unusual complication of a double-J ureteral stent: renal parenchymal perforation in a solitary kidney	222
Intratesticular calcified nodule	222

		2015 ◀	2016	2017	2018	2019 ▶	Total
Use the checkboxes to remove individual items from this Citation Report or restrict to items published between 1945 and 2019 Go		0	32	78	176	50	336
☐	1. **Antimicrobial susceptibilities of Escherichia coli isolates as agents of community-acquired urinary tract infection (2008-2014)** By: Yilmaz, Nisel; Agus, Neval; Bayram, Arzu; et al. TURKISH JOURNAL OF UROLOGY Volume: 42 Issue: 1 Pages: 32-36 Published: MAR 2016	0	0	5	5	0	10
☐	2. **What is new in non-muscle-invasive bladder cancer in 2016?** By: Kamat, Ashish M.; Bagcioglu, Murat; Huri, Emre TURKISH JOURNAL OF UROLOGY Volume: 43 Issue: 1 Pages: 9-13 Published: MAR 2017	0	0	2	6	1	9
☐	3. **Analysis of the correlation between sperm DNA integrity and conventional semen parameters in infertile men** By: Aydos, Oya Sena; Yukselten, Yunus; Kaplan, Fuat; et al. TURKISH JOURNAL OF UROLOGY Volume: 41 Issue: 4 Pages: 191-197 Published: DEC 2015	0	1	3	2	3	9
☐	4. **Score 3 prostate lesions: a gray zone for PI-RADS v2** By: Scialpi, Michele; Martorana, Eugenio; Aisa, Maria Cristina; et al. TURKISH JOURNAL OF UROLOGY Volume: 43 Issue: 3 Pages: 237-240 Published: SEP 2017	0	0	1	6	1	8
☐	5. **Robotic kidney transplantation: The Bakirkoy experience** By: Tugcu, Volkan; Sener, Nevzat Can; Sahin, Selcuk; et al. TURKISH JOURNAL OF UROLOGY Volume: 42 Issue: 4 Pages: 295-298 Published: DEC 2016	0	0	3	5	0	8
☐	6. **Impact of cadaveric surgical anatomy training on urology residents knowledge: a preliminary study** By: Ozcan, Serkan; Huri, Emre; Tatar, Ilkan; et al. TURKISH JOURNAL OF UROLOGY Volume: 41 Issue: 2 Pages: 83-87 Published: JUN 2015	0	3	3	2	0	8
☐	7. **Biparametric MRI of the prostate** By: Scialpi, Michele; D'Andrea, Alfredo; Martorana, Eugenio; et al. TURKISH JOURNAL OF UROLOGY Volume: 40 Issue: 4 Pages: 401-409 Published: DEC 2017	0	0	0	6	1	7

Yazarlık Kriterleri

The editorial and publication processes of the journal are shaped in accordance with the guidelines of the International Council of Medical Journal Editors (ICMJE), the World Association of Medical Editors (WAME), the Council of Science Editors (CSE), the Committee on Publication Ethics (COPE), the European Association of Science Editors (EASE), and National Information Standards Organization (NISO). The journal conforms to the Principles of Transparency and Best Practice in Scholarly Publishing (doaj.org/bestpractice).

TURKISH JOURNAL OF UROLOGY

Yazarlık Kriterleri

Uluslararası Tıp Dergileri Editörler Komitesi (ICMJE)

www.icmje.org

- **Çalışmayı düzenlenmek veya verileri toplamak veya analiz etmek ve yorumlamak**
- **Makaleyi yazmak veya içeriğini gözden geçirmek**
- **Yayınlanacak son şekline onay vermek**
- **Çalışmanın her yönüyle sorumluluğunu kabul etmiş olmak**

Yazarlık Kriterleri …

- Düzenlenmesi veya verilerin toplanması veya analiz edilmesi ve yorumlanması
- Yazılması veya içeriğinin gözden geçirilmesi
- Yayınlanacak son şekline onay vermek
- Çalışmanın her yönüyle sorumluluğunu kabul etmiş olmak
- Çalışmanın yapıldığı kliniğin yöneticisi olmak

BİR YAZIDA

2. YAZARIN ÖNÜNE GEÇERSENİZ

KAÇINCI İSİM OLURSUNUZ?

- 1
- 2
- 3

Yazıda Kaçıncı İsimim?

Eserdeki Yazar Sayısı	TAM PUAN YÜZDESİ						
	1. İsim	2. İsim	3. İsim	4. İsim	5. İsim	6. İsim	7. İsim ve üzeri
1 Yazar	100						
2 Yazar	100	100					
3 Yazar	90	85	80				
4 Yazar	85	80	75	70			
5 Yazar	80	75	70	65	60		
6 Yazar	75	70	65	60	55	50	
7 Yazar ve üzeri	70	65	60	55	50	45	40

- Çalışmayı planlama ve yürütme
- Verilen emeğe göre sıralama

Koşul No	Başvuru Şartları	Puan
101	Sağlık Bilimleri temel alanında başvurulan doçentlik bilim alanı ile ilgili olarak aşağıdaki çalışmalara verilen birim puanlar esas alınmak suretiyle; en az doksan (90) puanının doktora unvanının alınmasından sonra gerçekleştirilen çalışmalardan elde edilmiş olması kaydıyla, asgari yüz (100) puan karşılığı bilimsel etkinlikte bulunmuş olması gerekir. Her çalışma, Tablo 10'da sadece bir bölümde yazılarak puanlandırılır. Tek yazarlı makalelerde yazar tam puan alır. İki yazarlı makalelerde başlıca yazar tam puanın 0.8'ini, ikinci yazar 0.5'ini alır. Üç ve daha fazla yazarlı makalelerde ise, başlıca yazar toplam puanın yarısını alır, diğer yazarlar ise diğer yarısını eşit paylaşır. Başlıca yazarın belirtilmediği iki veya daha fazla yazarlı makalelerde toplam puan yazarlar arasında eşit olarak bölünür. Diğer yayınlarda (bildiri,kitap) ise toplam puan yazarlar arasında eşit olarak bölünür.	

Turkish Journal of Urology; 39(Supplement 1): 41–3 • doi:10.5152/tud.2013.053

TURKISH JOURNAL OF UROLOGY

PARTICULARS OF AN ACADEMIC WRITING

Education

How to write an editorial letter?

Evren Süer, Önder Yaman

MEKTUP TİPLERİ

Genel tip

- Önceki yayınlara yanıt niteliğinde yorum (olumlu veya olumsuz)
- Klinik veriler ya da araştırma verileri üzerinde kısa bir bildirim
- Olgu sunum(ları) ile ilgili bildirim

Yaygın olmayan tip

- Genel tıbbi ya da politik yorum (örn. derneklerle ilgili konular)
- Derginin niteliği ya da formatı üzerine yorum
- Hastalar ya da çalışma materyaline ulaşma veya birlikte çalışma konusunda ilan

Prevalence of and Predictive Factors for Burnout Among French Urologists in Training

Jérôme Gas[a,], Stéphane Bart[b], Philippe Michel[c], Benoit Peyronnet[d], Sébastien Bergerat[e], Jonathan Olivier[f], Dimitri Gambachidze[g], William Akakpo[g], Cedric Lebacle[h], Mathilde Nedelec[i], Paul Panayotopoulos[j], Maximilien Baron[k], Emmanuel Perrot[l], Bastien Gondran-Tellier[m], Anthony Manuguerra[n], Inès Dominique[o], Xavier Matillon[o], Benjamin Pradere[p] On behalf of the AFUF (Association Francaise des Urologues en Formation)*

The prevalence of Burnout Syndrome among Turkish Urologists: Results of a Nationwide Survey

Mustafa Suat Bolat[1], Emrah Yürük[2], Önder Çınar[1], Ekrem Akdeniz[1], Fatih Altunrende[3], Ünsal Özkuvancı[4], Leman Tomak[5], Ateş Kadıoğlu[4], Ahmet Yaser Müslümanoğlu[2]

Cite this article as: Bolat MS, Yürük E, Çınar Ö, Akdeniz E, Altunrende F, Özkuvancı Ü, et al. The prevalence of Burnout Syndrome among Turkish Urologists: Results of a Nationwide Survey. Turk J Urol 2018. DOI: 10.5152/tud.2018.34202

Dear Dr. Bolat,

we are pleased to inform you that the above manuscript has been accepted for publication in EUROPEAN UROLOGY.

TURKISH JOURNAL OF UROLOGY

Turk J Urol. 2017 Dec; 43(4): 401–409.
Published online 2017 Dec 1. doi: 10.5152/tud.2017.06978

PMCID: PMC5687199
PMID: 29201499

Biparametric MRI of the prostate

Michele Scialpi,[1] Alfredo D'Andrea,[2] Eugenio Martorana,[3] Corrado Maria Malaspina,[1] Maria Cristina Aisa,[4] Maria Napoletano,[1] Emanuele Orlandi,[1] Valeria Rondoni,[1] Pietro Scialpi,[5] Diamante Pacchiarini,[6] Diego Palladino,[7] Michele Dragone,[7] Giancarlo Di Renzo,[4,8] Annalisa Simeone,[7] Giampaolo Bianchi,[9] and Luca Brunese[10]

Dear Prof. Murat Bozlu,
Editor of Turkish Journal of Urology,
as you suggested the letter on the article "Risk stratification...." by Ullrich T et al. it has been accepted on Journal of Urology and my articles pubblished on your journal has been reported.
Sincerely
Michele Scialpi

No Access | Journal of Urology | Letter to the Editor/Errata | 1 Jul 2018

FIGURES REFERENCES RELATED D

Re: Risk Stratification of Equivocal Lesions on Multiparametric Magnetic Resonance Imaging of the Prostate

*T. Ullrich, M. Quentin, C. Arsov, A. K. Schmaltz, A. Tschischka, N. Laqua, A. Hiester, D. Blondin, R. Rabenalt, P. Albers, G. Antoch and L. Schimmöller J Urol 2018; **199:** 691–698.*

Michele Scialpi, Alfredo D'Andrea, Maria Cristina Aisa, and Corrado Maria Malaspina

https://doi.org/10.1016/j.juro.2018.02.3094

Volume
Issue 1
July 2018

Page: 202-204

TURKISH JOURNAL OF UROLOGY
Turkish Journal of Urology; 39(Supplement 1): 44-8 • doi:10.5152/tud.2013.054

PARTICULARS OF ACADEMIC WRITING

Education

How to write a review article?

Ömer Gülpınar, Adil Güçal Güçlü

1. Derlemede ele alınan soru ya da sorular.
2. Bu soruları cevaplamak için en iyi araştırmaları bulmak ve seçmek için yöntemler.
3. Bulunan ve birbirlerine hiç benzemeyen çalışmaların sentezini oluşturmak.

Turk J Urol 2018; 44(2): 93–102 • DOI: 10.5152/tud.2018.56056

UROONCOLOGY

Review

Multiparametric magnetic resonance imaging: Overview of the technique, clinical applications in prostate biopsy and future directions

Hüseyin Cihan Demirel, John Warren Davis

Cite this article as: Demirel HC, Davis JW. Multiparametric magnetic resonance imaging: Overview of the technique, clinical applications in prostate biopsy and future directions. Turk J Urol 2018; 44(2): 93-102.

ABSTRACT

Multiparametric magnetic resonance imaging (mpMRI) has managed to change the paradigms on prostate cancer detection and risk classification. The most clear-cut indication of mpMRI in guidelines is the patients with a history of negative biopsy/increasing prostate-specific antigen (PSA), and presence of additional findings supporting its use in non biopsied patients and active surveillance. mpMRI complements standard clinical exam, PSA measurements, and systematic biopsy, and will miss some tumors that lack enough size or change in tissue density. Use of mpMRI is likely to increase, and further developments in the technique will be important for safe adoption of focal therapy concepts. Here we present a brief summary about mpMRI and its use in detection, risk classification and follow- up of prostate cancer.

Keywords: Focal therapy; fusion biopsy; multiparametric MRI; prostate cancer.

Table 1: Level of evidence*

Level	Type of evidence
1a	Evidence obtained from meta-analysis of randomised trials.
1b	Evidence obtained from at least one randomised trial.
2a	Evidence obtained from one well-designed controlled study without randomization.
2b	Evidence obtained from at least one other type of well-designed quasi-experimental study.
3	Evidence obtained from well-designed non-experimental studies, such as comparative studies, correlation studies and case reports.
4	Evidence obtained from expert committee reports or opinions or clinical experience of respected authorities.

Phillips, B., *et al.* Oxford Centre for Evidence-based Medicine Levels of Evidence. Updated by Jeremy Howick March 2009.

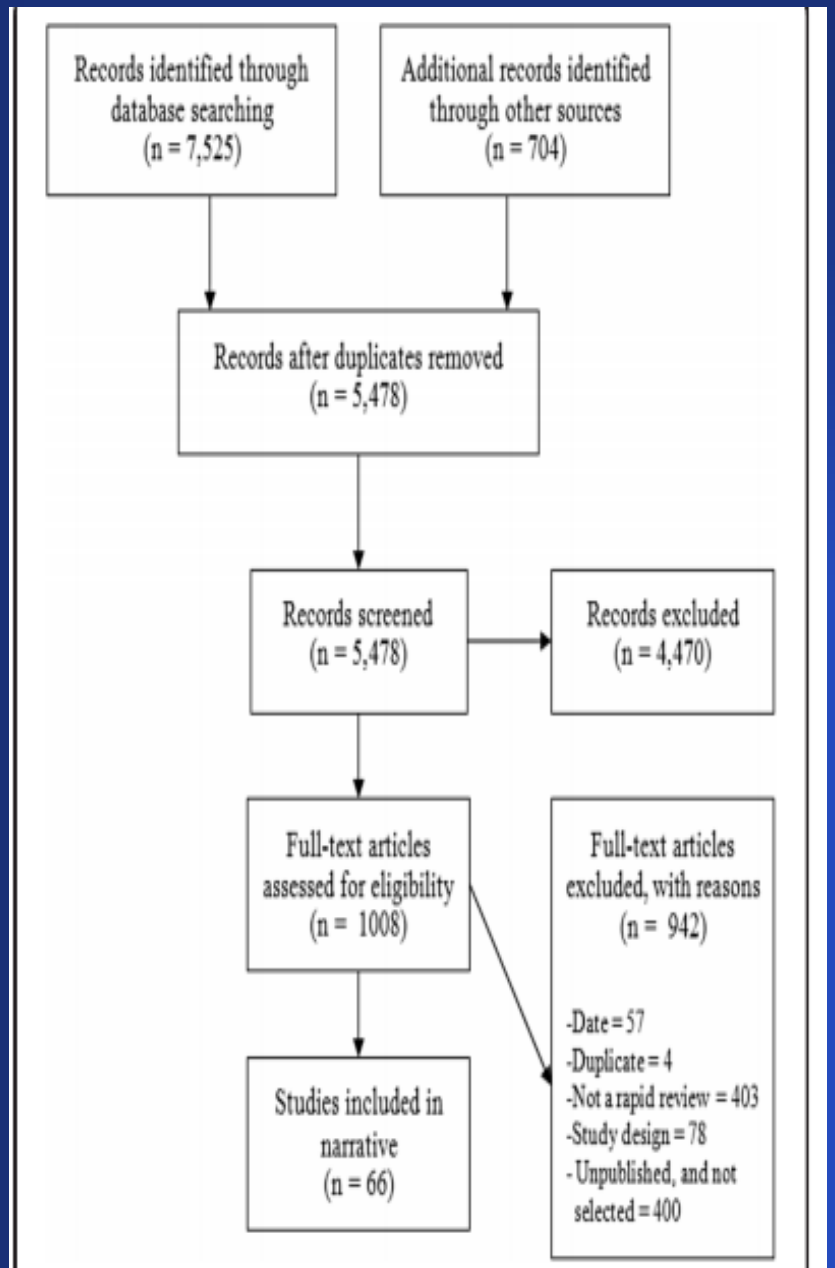


Fig. 2 PRISMA flow diagram

BMJ 2015;349:g7647 doi: 10.1136/bmj.g7647 (Published 2 January 2015)

RESEARCH METHODS & REPORTING

Preferred reporting items for systematic review and meta-analysis protocols (PRISMA-P) 2015: elaboration and explanation

OPEN ACCESS

Larissa Shamseer[1], David Moher[1], Mike Clarke[2], Davina Ghersi[3], Alessandro Liberati (deceased)[4], Mark Petticrew[5], Paul Shekelle[6], Lesley A Stewart[7], the PRISMA-P Group

Makale Bölümleri

- Başlık sayfası
- Özet
- Anahtar kelimeler
  - (Index Medicus Medical Subjects Headings-MeSH), www.ncbi.nlm.nih.gov/pubmed
- Ana makale
  - Giriş
  - Gereç ve Yöntemler
  - Bulgular
  - Tartışma
  - Teşekkür
  - Etik kurul, onam formu, hakemlik, yazar katkıları, çıkar çatışmaları ve finansal beyanlar
  - Kaynaklar

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THE EFFECT OF POLY (ADENOSINE DIPHOSPHATE-RIBOSE) POLYMERASE INHIBITORS ON BIOCHEMICAL CHANGES IN TESTICULAR ISCHEMIA-REPERFUSION INJURY

MURAT BOZLU,* GULÇIN ESKANDARI, SELAHITTIN ÇAYAN, BULENT CANPOLAT, ERDEM AKBAY AND UGUR ATIK

From the Departments of Urology and Biochemistry, University of Mersin School of Medicine, Mersin, Turkey

ABSTRACT

Purpose: Poly (adenosine diphosphate [ADP]-ribose) polymerase inhibitors have been used successfully to decrease ischemia-reperfusion injury in several organ systems. We evaluated the efficacy of poly (ADP-ribose) polymerase inhibitors on biochemical changes in testicular ischemia-reperfusion injury.

Materials and Methods: Adult male Wistar rats were divided into 9 groups of 6 each. One group served to determine baseline values of biochemical parameters, 1 that underwent sham operation served as a control, 1 underwent 2 hours of testicular torsion and 4 hours of detorsion, 2 received pretreatment with vehicle (saline or dimethyl sulfoxide) before detorsion and 4 received pretreatment with the poly (ADP-ribose) polymerase inhibitor nicotinamide, 3-aminobenzamide, 1,5-dihydroxyisoquinoline or 4-amino-1,8-naphthalimide before detorsion. Lipid peroxidation products, nitric oxide content and myeloperoxidase activity, an indicator of neutrophil accumulation, were assessed in testicular and renal tissues.

Results: Testicular torsion-detorsion caused a significant increase in lipid peroxidation products, nitric oxide content and myeloperoxidase activity in ipsilateral testes ($p < 0.01$) but not in the contralateral testes or kidneys. Animals treated with poly (ADP-ribose) polymerase inhibitors had a significant decrease in these biochemical parameters compared with vehicle treated animals ($p < 0.01$).

Conclusions: These data emphasize that poly (ADP-ribose) polymerase may have a role in testicular damage caused by ischemia-reperfusion and the inhibition of poly (ADP-ribose) polymerase may be a novel approach to therapy for ischemia-reperfusion injury of the testis.

KEY WORDS: testis; reperfusion injury; poly(ADP-ribose) polymerases; spermatic cord torsion; rats, Wistar

Testicular torsion is a urological emergency that causes testicular injury and subfertility.[1] It appears that the main pathophysiology of testicular torsion is ischemia-reperfusion injury to the testis caused by the twisted spermatic cord and its release.[2] Although reperfusion is essential for the survival of ischemic tissue, there is good evidence that reperfusion causes additional cell injury, which has been attributed to neutrophil infiltration and generation of reactive oxygen species, such as the superoxide anion, hydrogen peroxide and the hydroxyl radical.[3] These generation of reactive oxygen species can damage various cellular components, for example by peroxidation of cell membrane lipids, protein denaturation and DNA damage.

It has been demonstrated that reactive oxygen species produce strand breaks in DNA, which triggers energy consuming DNA repair mechanisms and activates the nuclear enzyme poly (adenosine diphosphate [ADP]-ribose) polymerase, also called poly (ADP-ribose) synthetase.[4] The activation of poly (ADP-ribose) polymerase results in the depletion of intracellular nicotinamide adenine dinucleotide, which can only be replenished via a reaction that consumes adenosine 5′-triphosphate (ATP). Ischemia-reperfusion injury resulting in substantial DNA degradation requires that cells must consume large amounts of ATP to support poly (ADP-ribosylation). Moderate poly (ADP-ribose) polymerase activity protects cellular genome integrity, although excessive activation can lead to cellular dysfunction and eventual cell death secondary to ATP depletion.[4]

In recent years an increased proportion of basic science research has been directed toward evaluating mechanisms and treatments involving cell injury and the poly (ADP-ribose) polymerase pathway is involved in the pathogenesis of various forms of ischemia-reperfusion injury.[4,5] Administering poly (ADP-ribose) polymerase inhibitors led to a decrease in ischemia-reperfusion injury to the heart and skeletal muscle in rabbits,[6] protection against oxidative stress to the kidney,[7] a decrease in brain infarct volume in a model of focal cerebral ischemia[8] and an amelioration of ischemia-reperfusion damage to the retina in rats.[9] To our knowledge the role of poly (ADP-ribose) polymerase inhibitors in testicular ischemia-reperfusion injury is undefined. In the current study we examined whether there is a protective effect of poly (ADP-ribose) polymerase inhibitors on biochemical changes associated with testicular ischemia-reperfusion injury in the anesthetized rat.

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* Requests for reprints: Department of Urology, University of Mersin School of Medicine, Zeytinlibahce Caddesi, 33079- Mersin, Turkey.

MATERIALS AND METHODS

Study groups consisted of 54 adult male Wistar rats weighing 240 to 280 gm. All animal experiments followed a protocol approved by the ethics committee on animal research at our institution.

Chemicals. We used the poly (ADP-ribose) polymerase inhibitors nicotinamide, benzamide analogues such as 3-aminobenzamide, recently discovered and more potent isoquinoline derivatives such as 1,5-dihydroxyisoquinoline and 4-amino-1,8-naphthalimide (Alexis Co., Lausen, Switzerland). Except for nicotinamide, which was dissolved in saline, all poly (ADP-ribose) polymerase inhibitors were dissolved in 10% dimethyl sulfoxide (DMSO). The administration modes and concentrations of the 4 poly (ADP-ribose) polymerase inhibitors used in this study correspond to those in previous experimental studies.[4,6–9]

Animal preparation and surgical procedure. The rats were divided into 9 groups of 6 each. Surgery was done with the subject under intraperitoneal 1 shot ketamine (50 mg./kg.) anesthesia. All surgical procedures were performed through a standard ilioinguinal incision. Torsion was created by rotating the left testis 720 degrees clockwise and maintained by fixing the testis to the scrotum with a 4-zero silk suture through the tunica albuginea. During sham operations the testis was rotated 720 degrees clockwise and then immediately relieved with a 4-zero silk suture was placed through the tunica albuginea. After each surgical intervention the incision was closed. At the end of the experiments bilateral orchiectomy and right nephrectomy were performed.

Groups. In group 1 (baseline values) the described organs were harvested after anesthesia. In group 2 (torsion-detorsion) the organs were harvested after torsion for 2 hours and detorsion for 4. In group 3 (saline vehicle before detorsion) the same surgical procedure was done as in the detorsion group but saline was injected intraperitoneally for 30 minutes before detorsion and an additional dose injected into the left femoral vein immediately before detorsion. In group 4 (DMSO vehicle before detorsion) the same surgical procedure was done as in the detorsion group but DMSO was injected intraperitoneally for 30 minutes before detorsion and an additional dose was injected into the left femoral vein immediately before detorsion. In group 5 (nicotinamide before detorsion) the same surgical procedure was done as in the detorsion group but nicotinamide (10 mg./kg.) was injected intraperitoneally for 30 minutes before detorsion and an additional dose (5 mg./kg.) was injected into the left femoral vein immediately before detorsion. In group 6 (3-aminobenzamide before detorsion) the same surgical procedure was done as in the detorsion group but 3-aminobenzamide (10 mg./kg.) was injected intraperitoneally for 30 minutes before detorsion and an additional dose (5 mg./kg.) was injected into the left femoral vein immediately before detorsion. In group 7 (1,5-dihydroxyisoquinoline before detorsion) the same surgical procedure was done as in the detorsion group but 1,5-dihydroxyisoquinoline (1 mg./kg.) was injected intraperitoneally for 30 minutes before detorsion and an additional dose (0.5 mg./kg.) was injected into the left femoral vein immediately before detorsion. In group 8 (4-amino-1,8-naphthalimide before detorsion) the same surgical procedure was done as in the detorsion group but 4-amino-1,8-naphthalimide (1 mg./kg.) was injected intraperitoneally for 30 minutes before detorsion and an additional dose (0.5 mg./kg.) was injected into the left femoral vein immediately before detorsion. In group 9 (sham operation group) the organs were harvested after sham operation, placed in glass bottles with rubber caps, labeled and stored in deep freeze. Lipid peroxides, nitric oxide (NO) and neutrophil content of the tissues were determined.

Determination of lipid peroxides. Tissues were homogenized in 150 mM. ice-cold potassium chloride to make a 10% homogenate using a glass polytetrafluoroethylene homogenizer. The homogenate centrifuged at 4000 × gravity for 10 minutes at 4C and maintained cold until measurement. Lipid peroxides in tissues were determined by the method of Ohkawa et al.[10] Subsequently 0.2 ml. 8.1% sodium dodecyl sulfate, 1.5 ml. 20% acetic acid and 1.5 ml. 0.8% thiobarbituric acid solutions were added to 0.1 ml. 10% tissue homogenate pipetted into a tube. The mixture was heated in a 95C water bath for 30 minutes. After cooling color was extracted into 5 ml. n-butanol-pyridine at a ratio of 15:1 and absorbance was measured at 532 nm. using a Cary 50 Bio UV Visible Spectrophotometer (Pty 1 + 2, Varian, Australia). The amount of lipid peroxides was calculated as thiobarbituric acid reactive products of lipid peroxidation and reported as nmol. malondialdehyde per 100 mg. wet tissue.

Determination of NO. Tissues were homogenized in 50 mM. ice-cold potassium phosphate buffer, pH 7.4, to make a 10% homogenate using a glass polytetrafluoroethylene homogenizer. The homogenate was centrifuged at 4000 × gravity for 10 minutes at 4C and maintained cold until measurement. Since tissue nitrite (NO_2^-) and nitrate (NO_3^-) levels can be used to estimate NO production, we measured the concentrations of these stable NO oxidative metabolites. Quantification of NO_2^- and NO_3^- was based on the Griess reaction, in which a chromophore with strong absorbance at 540 nm. is formed by the reaction of NO_2^- with a mixture of N-(1-naphthyl)-ethylenediamine and sulfanilamide, that is the No. 2,746,081 nitrite/nitrate colorimetric method (Roche Diagnostics GmBH, Mannheim, Germany). Standard curves were established with a set of serial dilutions of sodium nitrite and potassium nitrate (5 to 0.05 mg. nitrite or nitrate per l.). Linear regression was done using peak areas from the NO_2^- and NO_3^- standard curves. The resulting equation was then used to calculate the unknown sample concentration. Results are expressed as nmol. NO_2^- or NO_3^-/100 mg. wet tissue.

Determination of neutrophil content. Neutrophil content of the tissues was determined by myeloperoxidase assay. Tissues were homogenized in 2 ml. ice-cold 20 mM. potassium phosphate buffer, pH 7.4, and centrifuged at 17,000 × gravity at 4C for 30 minutes. The pellets were resuspended in ice-cold potassium phosphate buffer, pH 7.4. Suspensions were then centrifuged twice more and 0.5% (weight per volume) hexacyltrimethylammonium bromide, 10 mM. ethylenediaminetetraacetic acid in 50 mM. potassium phosphate buffer, pH 6.0, was added to remaining pellet. Suspensions were re-homogenized, incubated at 4C for 20 minutes and centrifuged at 17,000 × gravity for 15 minutes at 4C. The protein concentration in the resulting supernatant was determined using the Cobas Integra 700 (Roche Diagnostics) pyrogallol-red molybdate complex colorimetric method. Sample supernatant was incubated with 0.2 mg./ml. o-dianisidine and 158 μM. H_2O_2 in 50 mM. potassium phosphate buffer, pH 6.0, at a ratio of 4:1. Changes in absorbance were detected at 450 nm. using a Reader 230 S (Organon Technica, Anthos Labtec Instruments, Austria) microtiter photometric plate reader. Myeloperoxidase activity is expressed in absorbance per minute per gm. protein.

Statistical analysis. All data are expressed as the mean ± SD. ANOVA was used for statistical analysis of the data among the groups. Multiple comparisons were made using Tukey's procedure with $p < 0.05$ considered statistically significant.

RESULTS

Tables 1 to 3 show intratesticular and intrarenal malondialdehyde, NO and myeloperoxidase values. The values of these 3 parameters in the testes and kidneys of sham operated animals did not differ significantly from baseline ($p > 0.05$, tables 1 to 3). Compared with baseline malondialdehyde, NO and myeloperoxidase in the torsion-detorsion group were significantly higher in the ipsilateral testes ($p < 0.01$) but not significantly different in the contralateral testes or kidneys ($p > 0.05$, tables 1 to 3). Ipsilateral testicular malondialdehyde, NO and myeloperoxidase values in the poly (ADP-ribose) polymerase inhibitor pretreatment groups were significantly lower than in the torsion-detorsion group ($p < 0.01$) (table 1). These values in the ipsilateral testes of the vehicle treated (saline or DMSO) groups were not statistically significantly different than in the torsion-detorsion

TABLE 1. *Malondialdehyde, NO and myeloperoxidase in the ipsilateral testes*

Groups	Mean Malondialdehyde ± SD (nmol./100 mg. wet tissue)	Mean NO ± SD (nmol./ 100 mg. wet tissue)	Mean Myeloperoxidase ± SD (absorbance/min./gm. protein)
Baseline	14.37 ± 6.80	19.53 ± 6.58	17.11 ± 6.39
Torsion-detorsion*	47.46 ± 8.29	36.06 ± 4.80	43.18 ± 7.16
Saline*	45.49 ± 9.38	36.82 ± 4.45	42.36 ± 6.82
DMSO*	44.93 ± 7.49	35.80 ± 4.22	40.09 ± 6.97
Nicotinamide†	26.14 ± 5.19	26.41 ± 5.93	28.44 ± 4.87
3-Aminobenzamide†	27.40 ± 5.80	25.72 ± 5.70	26.04 ± 4.82
1,5-Dihydroxyisoquinoline†	25.53 ± 6.04	25.22 ± 5.86	29.61 ± 5.08
4-Amino-1,8-naphthalimide†	26.36 ± 5.17	24.62 ± 6.05	29.09 ± 5.02
Sham operation	14.96 ± 6.85	18.53 ± 6.78	16.18 ± 4.92

* Versus baseline $p < 0.01$.
† Versus torsion-detorsion $p < 0.01$.

TABLE 2. *Malondialdehyde, NO and myeloperoxidase in the contralateral testes*

Groups	Mean Malondialdehyde ± SD (nmol./100 mg. wet tissue)	Mean NO ± SD (nmol./ 100 mg. wet tissue)	Mean Myeloperoxidase ± SD (absorbance/min./gm. protein)
Baseline	14.19 ± 7.71	19.25 ± 5.46	17.54 ± 4.65
Torsion-detorsion	16.20 ± 7.63	18.95 ± 6.22	18.23 ± 6.58
Saline	16.32 ± 8.97	18.46 ± 4.66	17.64 ± 6.63
DMSO	15.22 ± 6.19	19.05 ± 5.85	17.70 ± 6.27
Nicotinamide	15.33 ± 8.09	19.66 ± 6.14	17.92 ± 3.64
3-Aminobenzamide	14.35 ± 8.64	17.98 ± 5.25	17.46 ± 3.76
1,5-Dihydroxyisoquinoline	14.09 ± 8.91	19.45 ± 4.82	17.03 ± 3.69
4-Amino-1,8-naphthalimide	15.67 ± 7.95	19.36 ± 5.47	16.51 ± 4.13
Sham operation	15.65 ± 6.82	18.92 ± 7.12	16.84 ± 5.15

No statistically significant differences among the groups ($p > 0.05$).

TABLE 3. *Malondialdehyde, NO and myeloperoxidase in the kidneys*

Groups	Mean Malondialdehyde ± SD (nmol./100 mg. wet tissue)	Mean NO ± SD (nmol./ 100 mg. wet tissue)	Mean Myeloperoxidase ± SD (absorbance/min./gm. protein)
Baseline	19.48 ± 5.26	47.15 ± 6.69	97.68 ± 11.85
Torsion-detorsion	17.23 ± 5.56	45.95 ± 6.27	101.81 ± 12.65
Saline	22.19 ± 4.92	50.64 ± 8.13	98.82 ± 9.32
DMSO	20.96 ± 8.77	40.64 ± 4.17	98.78 ± 8.37
Nicotinamide	17.91 ± 4.98	44.54 ± 6.34	95.85 ± 11.74
3-Aminobenzamide	17.44 ± 5.43	52.67 ± 3.11	102.17 ± 10.11
1,5-Dihydroxyisoquinoline	21.23 ± 5.43	46.75 ± 7.12	100.66 ± 9.55
4-Amino-1,8-naphthalimide	18.68 ± 3.73	51.64 ± 8.63	94.74 ± 9.78
Sham operation	19.88 ± 4.76	48.15 ± 7.09	98.12 ± 9.35

No statistically significant differences among the groups ($p > 0.05$).

group ($p > 0.05$, table 1). The values of these 3 parameters in the contralateral testes and kidneys were not significantly different among these groups ($p > 0.05$, tables 2 and 3).

DISCUSSION

Testicular torsion is one of the few emergencies that requires immediate intervention to untwist the affected testis. In animal models Akgur et al noted clear reperfusion injury to the testis after untwisting the spermatic cord.[2] Testicular injury after torsion had an ischemic and a reperfusion component. Although reperfusion is essential for the survival of ischemic tissue, there is good evidence that reperfusion causes pathophysiological cascades, including ATP depletion, intracellular calcium accumulation, phospholipase activation, membrane lipid alterations, cytoskeletal dysfunction, neutrophil infiltration and reactive oxygen species generation.[3] The activation of poly (ADP-ribose) polymerase is currently described as a final common effector in various types of tissue injury, including ischemia-reperfusion.[4] Recently poly (ADP-ribose) polymerase inhibitors were successfully used to decrease ischemia-reperfusion injury in multiple organ systems, including the heart, skeletal muscle,[6] kidney,[7] brain[8] and retina.[9] The successful results of poly (ADP-ribose) polymerase inhibitors in different organ systems led us to use this treatment in model of testicular torsion. However, to our knowledge the effect of pharmacological poly (ADP-ribose) polymerase inhibition on testicular ischemia-reperfusion injury has not been reported previously.

In the current study we examined 3 biochemical changes associated with reperfusion injury, namely lipid peroxidation products, NO concentration and neutrophil content in testicular tissue. Lipid peroxidation products of the testis have previously been shown to increase after torsion repair.[2] In this report 2 hours of ischemia followed by 4 hours of reperfusion caused a significant increase in malondialdehyde levels in the testis. Akgür[11] and Lysiak[12] et al reported that allopurinol, and catalase and superoxide dismutase plus catalase treatments caused a decrease in lipid peroxidation products and these treatment modalities protected the testis against reperfusion injury. The effect of poly (ADP-ribose) polymerase inhibitors on ischemia-reperfusion induced lipid peroxidation was investigated by Halmosi et al, who reported that the inhibitors prevented ischemia-reperfusion induced lipid peroxidation in cases of Langendorff perfused heart.[13] Under our experimental conditions administering poly (ADP-ribose) polymerase inhibitors before reperfusion caused a significant decrease in the level of testicular malondialdehyde compared with that in the torsion-detorsion group. Our data indicate that treatment with poly (ADP-ribose) polymerase inhibitors prevents a further increase in lipid peroxidation caused by ischemia-reperfusion. Thus, these compounds may protect the testis against reactive oxygen species related oxidative damage.

In addition to reactive oxygen species, including hydrogen peroxide, hydroxyl radicals and superoxide anions, the formation of NO is enhanced during reperfusion of the ischemic testis.[14] Nitric oxide, a gaseous molecule with diverse biological functions, is synthesized from L-arginine by a family of

isoenzymes termed NO synthases (NOSs).[3] Results in previous studies suggest that NO has an important role in damaging the testis via ischemia-reperfusion.[14,15] Similarly the current study showed that reperfusion for 4 hours after 2 hours of ischemia elevated NO production in a model of testicular torsion in the rat. It has been investigated in several organs that after ischemia superoxide is produced during the reperfusion phase, which rapidly reacts with NO and forms peroxynitrite.[3] Peroxynitrite initiates toxic oxidative reactions, directly inhibits mitochondrial respiratory enzymes, decreases cellular oxygen consumption and inhibits membrane sodium transport. Oxidative injury in response to oxygen radicals and peroxynitrite is related to DNA single strand breakage and the consequent activation of poly (ADP-ribose) polymerase.[4] Therefore, poly (ADP-ribose) polymerase activation leads to cell death through energy depletion. Inhibiting poly (ADP-ribose) polymerase protects against cellular oxidant injury triggered by peroxynitrite, a cytotoxic oxidant produced by the reaction of superoxide and NO.[4,5]

On the other hand, our study also demonstrated that treatment with poly (ADP-ribose) polymerase inhibitors before reperfusion significantly decreased the concentration of testicular NO. Poly (ADP-ribose) polymerase inhibition decreases NO production by inhibiting inducible NOS mRNA expression.[5] There may be a specific region of the inducible NOS promoter that is regulated by such inhibition. Suppressing inducible NOS expression may be an additional mechanism by which the inhibition of poly (ADP-ribose) polymerase suppresses the inflammatory response.[4] In light of these data one may anticipate that administering poly (ADP-ribose) polymerase inhibitors before reperfusion would protect the testis against NO related injury in ischemia-reperfusion.

Turner et al documented leukocyte margination and diapedesis 4 hours after torsion repair.[16] As previously stated, reperfusing leukocytes are potent generators of reactive oxygen species and the recruitment of neutrophils to the testis after torsion is essential for the observed pathological condition. Extravasated neutrophils become activated after they are at the inflammatory sites, secreting various substances such as growth factors, chemokines, cytokines, complement components, proteases, NO, reactive oxygen metabolites and peroxynitrite, which are important mediators of tissue injury.[3] We also found that testicular myeloperoxidase values, an indicator of neutrophil accumulation, determined 4 hours after torsion repair were significantly increased in the torsion-detorsion group compared with myeloperoxidase in the baseline group. Recent investigations indicate that poly (ADP-ribose) polymerase activation has an important role in the process of neutrophil recruitment and in various forms of inflammation.[4,5] Inhibiting poly (ADP-ribose) polymerase suppresses the inflammatory response and attenuates neutrophil recruitment. Based on the data in this study we propose that decreased myeloperoxidase activity in testicular ischemia-reperfusion represents an important additional protective effect provided by poly (ADP-ribose) polymerase inhibitors.

The effect of unilateral torsion on the contralateral testis is controversial. It has been demonstrated that ipsilateral torsion does not result in contralateral testicular damage in rats.[17] Similarly in our study, while 2 hours of torsion followed by 4 hours of detorsion resulted in significant changes in biochemical analysis of the ipsilateral testes, our results did not reveal any change in the contralateral testes.

CONCLUSIONS

Although several enzymes and drugs have been used for decreasing ischemia-reperfusion injury to date,[11,12,18,19] there has been relatively little research into the role of poly (ADP-ribose) polymerase within the testis.[20] To our knowledge our results provide the first evidence of the role of poly (ADP-ribose) polymerase in the pathogenesis of testicular ischemia-reperfusion injury. We propose that inhibiting poly (ADP-ribose) polymerase may be a novel approach to therapy for ischemia-reperfusion injury of the testis. However, further studies are required to elucidate the mechanism of ischemia-reperfusion injury of the testis that involves poly (ADP-ribose) polymerase activation.

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Başlık Sayfası

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  - Yüzeysel kalma ama detaya da boğma
  - Kısaltmalardan kaçının
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Kawasaki Hastalığı: Akut Atakla Başvuran 44 Hastanın Klinik ve Kardiyolojik Erken Dönem Prognozları

Kawasaki Disease: The Clinical and Cardiologic Early-Term Prognosis of 44 Patients with Acute Attack

[a]Gülçin Bozlu, Uzman Dr., gulnebi@hotmail.com

[a]Özlem Tezol, Yard. Doç. Dr., ozlemtezol@hotmail.com

[a,b]Derya Karpuz, Yard. Doç. Dr., drderyakarpuz@gmail.com

[a,b]Olgu Hallıoğlu, Prof. Dr.,olguhallioglu@yahoo.com

[a,c]Necdet Kuyucu, Prof. Dr., nkuyucu@yahoo.com

Mersin Üniversitesi Tıp Fakültesi, [a]Çocuk Sağlığı ve Hastalıkları Anabilim Dalı, [b]Çocuk Kardiyolojisi Bilim Dalı, [c]Çocuk Enfeksiyon Hastalıkları Bilim Dalı, Mersin

Yazışma Adresi: Uz. Dr. Gülçin Bozlu, Mersin Üniversitesi Tıp Fakültesi, Çocuk Sağlığı ve Hastalıkları Anbilim Dalı, Mersin, gulnebi@hotmail.com

Bu çalışma, 9. Ulusal Çocuk Enfeksiyon Hastalıkları Kongresi'nde (5-8 Nisan 2015, Antalya) poster olarak sunulmuştur.

Özet

- Makalenin başlığıyla beraber en çok indekslenen bölümüdür
  - Tanıtıcı
  - Açık ve basit
- Yapılandırılmasında giriş/amaç, gereç/yöntem, bulgular ve sonuç bulunmalıdır
- Özgün araştırma, sistematik derleme ve metaanalizlerde yapılandırılmış özet tercih edilmelidir
- Özet bölümüne tablo ve şekil konulmamalıdır
- Ana metinde geçmeyen bulgular özette verilmemelidir
- Ana metin bittikten sonra en son yazılması tercih edilir

Giriş

- **<u>İlk paragraf</u>: Kısa ve etkili cümlelerle konunun cazip hale getirilmesi**
- **<u>Orta paragraf</u>: Makalenin konusuyla ilgili güncel literatür ışığında bilgilendirme yapılması**
- **Asıl odaklanılacak konu ve öneminin belirtilmesi**
- **<u>Son paragraf</u>: Amaç veya hipotezin açıkça ortaya konulması**
- **Yeri geldiğinde kısaltmaların açıklamalarıyla belirtilmesi**
- **Esrarengiz, kafa karıştırıcı ve uzun cümlelerden kaçınılmalı**
- **Unutmayınız! Amacı makaleyi tanıtmaktır.**

Testicular torsion is a surgical emergency. Misdiagnosis and inappropriate treatment of this condition can lead to male factor infertility (1). It seems that the main pathophysiology of testicular torsion is ischemia–reperfusion injury of the testis caused by the twisted spermatic cord and its release (2). Ischemia–reperfusion injury initiates a pathophysiologic cascade, including an activation of neutrophils, inflammatory cytokines, and adhesion molecules with increased thrombogenicity, release of massive intracellular Ca^{2+}, and generation of oxygen-derived free radicals (3). Reactive oxygen species, including superoxide anions, hydrogen peroxide or hydroxyl radicals, and nitric oxide or peroxynitrite, cause DNA damage, endothelial damage, and germinal cell necrosis (2, 4).

Vascular endothelial growth factor (VEGF), an angiogenic peptide, mediates angiogenesis and vasculogenesis and promotes endothelial cell survival (5). Over the past decade, extensive research has been done on VEGF, and the protective effect of VEGF has been shown in various forms of ischemia–reperfusion injury, including brain (6), liver (7), and heart (8). However, no study has investigated the role of VEGF in testicular ischemia–reperfusion injury. The aim of this study was to evaluate the effect of VEGF injection into the testis, especially on spermatogenesis and apoptosis, in a rat testicular ischemia–reperfusion injury model.

MATERIALS AND METHODS

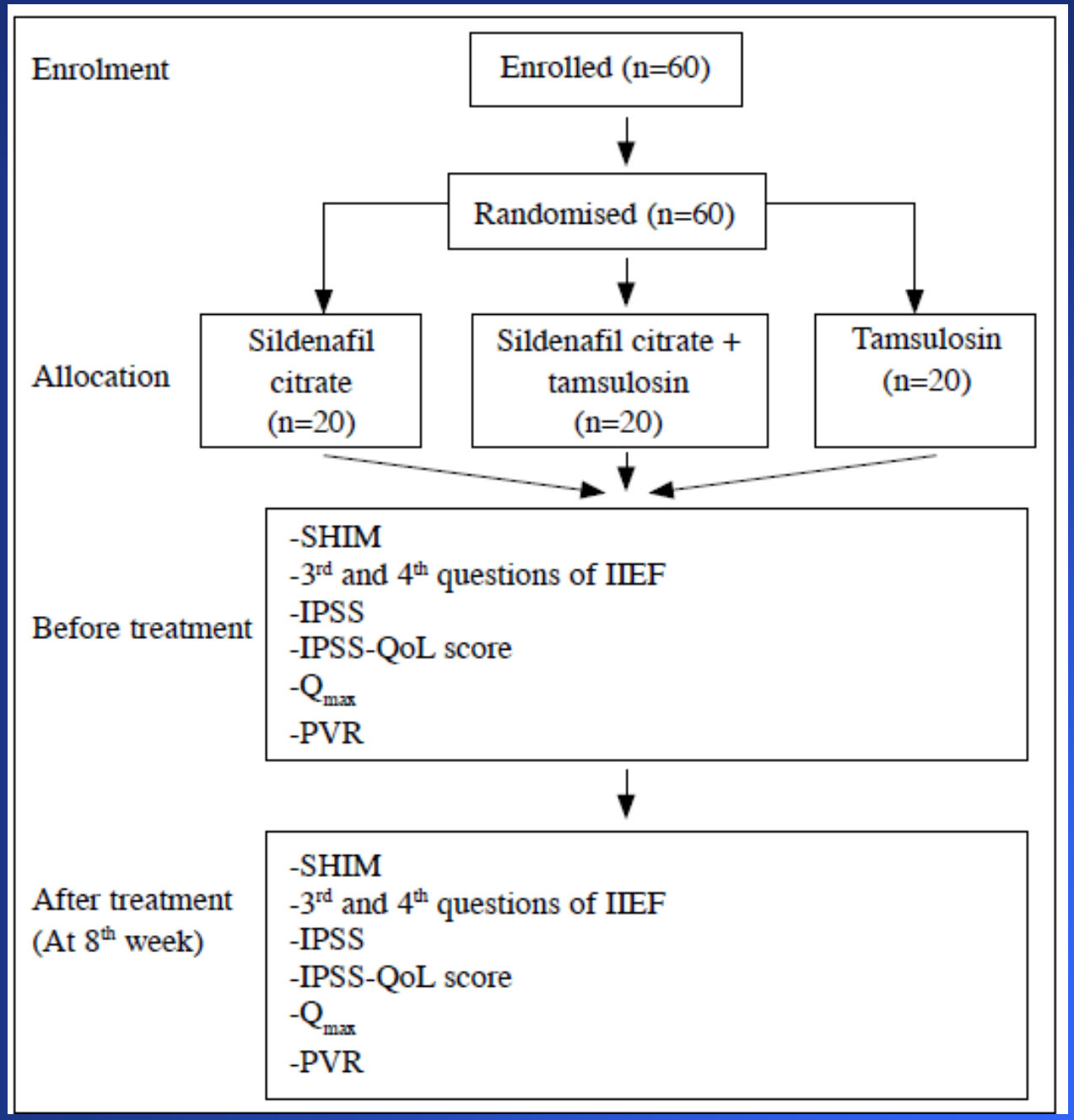
The study included 16 adult male Wistar rats weighing 280–310 g. The rats were maintained on a 12-hour light/dark cycle. All animal experiments followed a protocol approved by the ethics committee on animal research at our institution. We performed appropriate care and use of laboratory animals as recommended by Board of Registry publication guidelines.

Animal Preparation and Surgical Procedure

The rats were divided into three groups. Surgery was performed with a single dose of intraperitoneal ketamine (50 mg/kg) anesthesia. All surgical procedures were performed

Gereç ve Yöntem

- Bulgularda ortaya konulan verilere nasıl ulaşıldığı ve yöntemleri burada anlatılır
- Çalışmanın dizaynı:
  - Prospektif, retrospektif vs.
  - Randomize, çift kör, plasebo
- Gözlemsel ya da deneysel çalışmaya alınan olguların sayıları
- Kullanılan maddelerin isimleri
- Etik kurul izni alınıp alınmadığı
- Kullanılan istatistiksel değerlendirme


Enrolment
Enrolled (n=60)
Randomised (n=60)
Allocation
Sildenafil citrate (n=20)
Sildenafil citrate + tamsulosin (n=20)
Tamsulosin (n=20)
Before treatment
-SHIM
-3rd and 4th questions of IIEF
-IPSS
-IPSS-QoL score
-Qmax
-PVR
After treatment (At 8th week)
-SHIM
-3rd and 4th questions of IIEF
-IPSS
-IPSS-QoL score
-Qmax
-PVR

Bulgular

- Bulgular kısa, açık ve anlaşılır yazılmalıdır
- Eğer fazla sayıda parametre varsa alt başlıklar kullanılabilir
- Tablo ve şekiller
  - Derginin önerilerine uymalıdır
  - Kısaltmalar açıklanmalıdır
  - İçerisindeki verilerin hepsi metinde tekrar tekrar yazılmamalıdır
- Sadece söz konusu çalışmanın bulguları yazılmalıdır
- Burada elde edilmemiş bir bulgu özette yer almamalıdır
- Tarafsız, açık, inandırıcı ve yorumsuz olarak verilmelidir

ve 50±27,79 ay idi (p=0,827). Komplet ve inkomplet grupta ortalama hemoglobin değeri, beyaz küre sayısı, trombosit sayısı, C-reaktif protein, eritrosit sedimantasyon hızı ve albümin değerleri yönünden anlamlı fark gözlenmedi (Tablo 2).

TABLO 2: Komplet ve inkomplet Kawasaki Hastalığı gruplarının laboratuvar bulguları.

	Toplam Hasta (n=44)	Komplet KH (n=38)	İnkomplet KH (n=6)	*P
Hemoglobin (g/dL)	10,65±2,25	10,86±2,32	9,52±1,56	0,222
Beyaz küre (x1000/mm^3)	15,32±8,53	15,54±8,62	13,95±8,58	0,707
Trombosit (x1000/mm^3)	585,7±349,4	586,7±338,6	578,4±470,6	0,791
ESH (mm/saat)	44,62±25,04	45,65±22,61	42,03±36,6	0,240
CRP (mg/dL)	66,92±59,71	63,65±56,66	91,06±82,66	0,484
Albümin (g/dL)	3,37±0,61	3,41±0,58	3,15±0,69	0,458

*P <0,05 değerleri istatistiksel olarak anlamlı.

AUR developed in 3 patients (9.09%) in the control group and 1 patient (3.03%) in the tamsulosin group on postprocedure days 2 to 4 (2.75 ± 0.95). No clot retention was noted (Fig. 1). AUR was

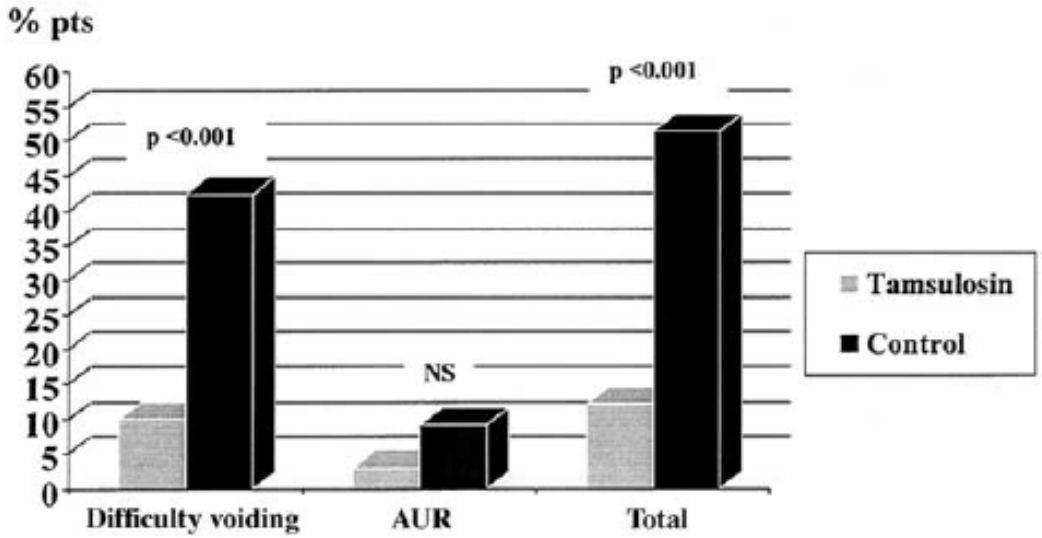


FIGURE 1. *Comparison of voiding impairment after prostate biopsy between control and tamsulosin groups. NS = not significant.*

Tartışma

- Bulgular yorumlanır
- Yazarların görüşleri burada belirtilir
- Kanıt ve delillerle savunma yapılır
- Bulgular sırasıyla tartışılmalıdır
- Uzunluğu önceki bölümlerin toplamını geçmemelidir
  - Araştırma makaleleri derleme gibi yazılmamalıdır
  - Gereksiz atıf yapılmamalıdır
- Çabuk retlerin en önemli nedeni gereksiz uzun tartışmalardır

Teşekkür

- Yardımcı kişi ve kuruluşlar
- Finansal destek
- Veri yardımı yapanlar

Kaynaklar

- Bilim ahlakının önemli bir parçasıdır
- Her dergi kendi kuralını belirtir
- Kaynaktan birebir alıntı («…..»)
- Dergi, kitap, kitap bölümü, elektronik kaynaklar

TJU Ne zaman SCIE'ye girecek?

Özetlersek…

TANIM (Reviewer, Referee)

- **Hakemler genellikle bilimsel yazı yazanlar arasından seçilir.**
- **Hakem=Yazar**
- **Peer Review**
  - **The *heart* of scientific publishing**
  - **The *lynchpin* in the whole business of science**
- **Peer: *Somebody who is at an equal level***

Bilimsel Yazıda Hakemlik Yöntemleri

- Tek-kör yöntem
- Çift-kör yöntem
- Açık sistem
- Karşılıklı anlaşmalı sistem
- Hakemleri yazarın önermesi

Hakemlik Daveti Neden Reddedilir?

- Hakemlik tecrübesinin olmaması
- Eleştiri yeteneğinin olmadığını düşünme
- Çalışmayı anlayamama
- Ret kararında defalarca revizyon
- Sadece yazara katkı olduğunu düşünme
- Yanlış değerlendirme korkusu
- Yazarı tanıma

Annesley MT, Clinical Chemistry, 2012

Hakem Bilimsel Yazıyı Nasıl Değerlendirir?

- Dergi kılavuzu (Yazım Kuralları)
  - Yazı dili
  - Başlık
  - Özet
  - Giriş (Problem nedir?)
  - Gereç ve Yöntem (Nasıl incelendi?)
  - Bulgular (Neler bulundu?)
  - Tartışma (Ne anlam taşıyor)
  - Kaynaklar
  - Ekler (tablo, resim, grafik gibi)

Hakem Bilimsel Yazıyı Nasıl Değerlendirir?

- Genel
  - Çalışmanın özgünlüğü
  - Hipotezin önemi ve sunumu
  - Yöntemin güçlü ve zayıf yanları
  - Bulguların sunumu
  - Tartışma
  - Kaynakların güvenilirliği ve güncelliği
  - Ekler (tablo, resim, grafik gibi)
  - Yazarlar ve görevleri
  - Etik
    - İntihal (plagiarism checker)
    - Çıkar çatışması

Bilimsel Yazı-Hakemlere Öneri

Some Do's and Don't's of Peer Evaluation

- **Yazara nezaket ve saygı**
- **Kişiyi değil, performansı yorumlayınız**
- **Tartışmada desteklenen ya da desteklenmeyen görüşleri tarafsız değerlendiriniz**
- **Güçlü ya da problemli yönleri**
  - **Dengeli ve tam değerlendirmeyi amaçlayınız**
  - **Spesifik örneklerle yorumlayınız**
- **Mevcut taslağın ileride yapılacak çalışmalara nasıl ışık tutabileceği hakkında yorum yapınız**

Maner M, The Research Process, 2001

Bilimsel Yazı-Hakemlere Öneri

Some Do's and Don't's of Peer Evaluation

- **Kibirli ve keskin yorumlar yapmayınız**
- **Kişisel inanç ve değer yargılarına yönelik tartışma yapmayınız**
- **Yazarla iddialaşmayınız.**
  - **İtiraz ya da soruları tartışmayı güçlendirmek için yapınız**
- **Yorumlarınızı mekanik detaylarla sınırlamayınız**
- **Anlaşılması güç yorumlar yapmayınız**
- **Yazarın yerine yazmayınız**

Maner M, The Research Process, 2001

Hakem Görüşleri

- Önemsiz
- Değersiz
- Zayıf
- Yanıltıcı
- Sakıncalı

X

- Netliği artırıcı
- Aydınlatıcı
- Doğru
- Faydalı

En İyi Hakemler Kimlerdir?

- **Doktora yapan > Kıdemli Editör**

  Gewin V, Nature, 2011

- **Yard. Doç. > Profesör**

  Evans AT, J Gen Intern Med, 1993

- **Yeni mezunlar > Öğretim Üyesi**

  Navalta JW, Adv Physiol Educ, 2010

Son Karar …

- Hakem(ler)
- Yayın kurulunun tüm üyeleri
- Yayınevi müdürü
- Editör
- Yazı işleri müdürü

SONUÇ

- Hakem yazının mahremiyetini korumalıdır
- Hiçbir makale mükemmel değildir
- Dil problemi ve tecrübesizlik sizi engellemesin
- Derginin temeli bilimsel yazılardır.
- Editörün yazarlara ihtiyacı vardır.
- Bilimsel yazı olmazsa dergi olmaz.
- Hakem görüşleri ***ÖNERİ*** niteliğindedir.

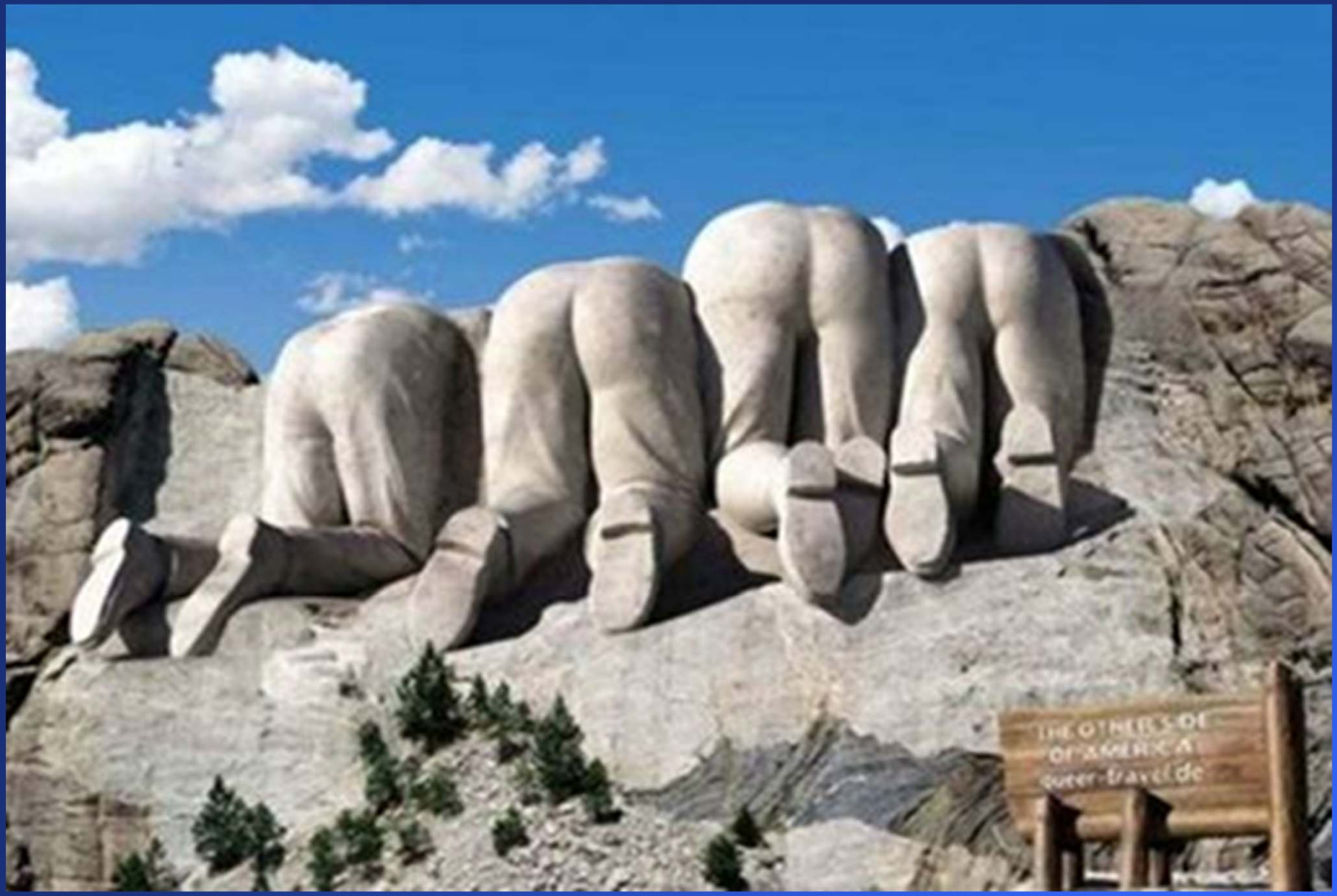
- Son karar ⟶ ***EDİTÖR***

Bir araştırmacı yaptığı çalışmanın aynı verilerini / sonuçlarını birden fazla dergiye yolluyor ve hepsi de yayımlanıyor.

Yapılan bu etik dışı davranışın adı aşağıdakilerden hangisidir?

- **Duplikasyon**
- **İntihal**
- **Fabrikasyon**
- **Salamizasyon**
- **Çarpıtmacılık**

6. Atıflar	
a) SCI, SCI-Expanded, SSCI ve AHCI tarafından taranan dergilerde; Uluslararası yayınevleri tarafından yayımlanmış kitaplarda yayımlanan ve adayın yazar olarak yer almadığı yayınlardan her birinde, metin içindeki atıf sayısına bakılmaksızın adayın atıf yapılan her eseri için	**3**
b) SCI, SCI-Expanded, SSCI ve AHCI dışındaki endeksler tarafından taranan dergilerde; Uluslararası yayınevleri tarafından yayımlanmış kitaplarda bölüm yazarı olarak yayımlanan ve adayın yazar olarak yer almadığı yayınlardan her birinde, metin içindeki atıf sayısına bakılmaksızın adayın atıf yapılan her eseri için	**2**
c) Ulusal hakemli dergilerde; Ulusal yayınevleri tarafından yayımlanmış kitaplarda yayımlanan ve adayın yazar olarak yer almadığı yayınlardan her birinde, metin içindeki atıf sayısına bakılmaksızın adayın atıf yapılan her eseri için	**1**
Bu madde kapsamında **en az 4** puan alınması zorunludur. Bu madde kapsamında **en fazla 20 puan** alınabilir.	



TEŞEKKÜRLER