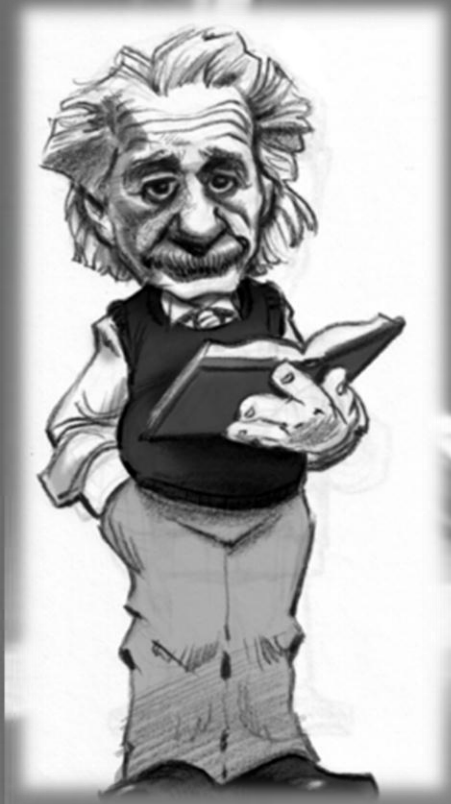
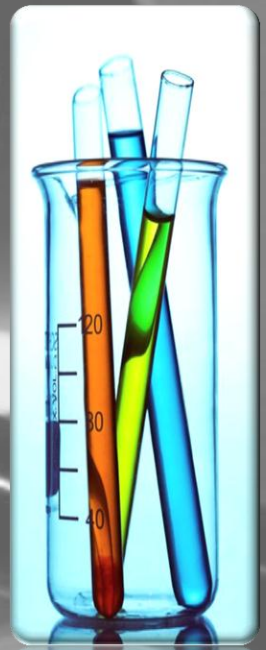
Toksikolojide Kanıta Dayalı Tıp

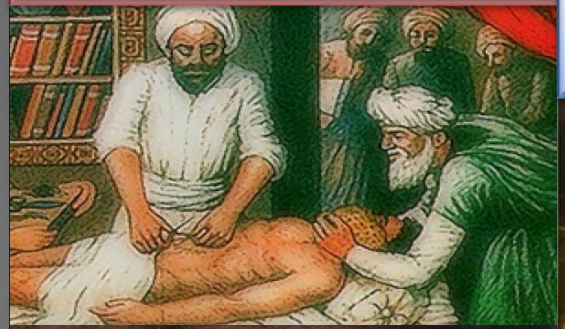


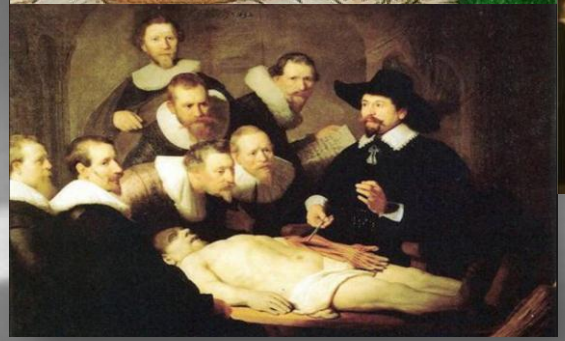


Dr. Şeref Kerem ÇORBACIOĞLU
Keçiören EAH Acil Tıp Kliniği

Bildiklerimiz… Bilmediklerimiz…

Ampirik Deneyimler





Otör görüşleri

KDT

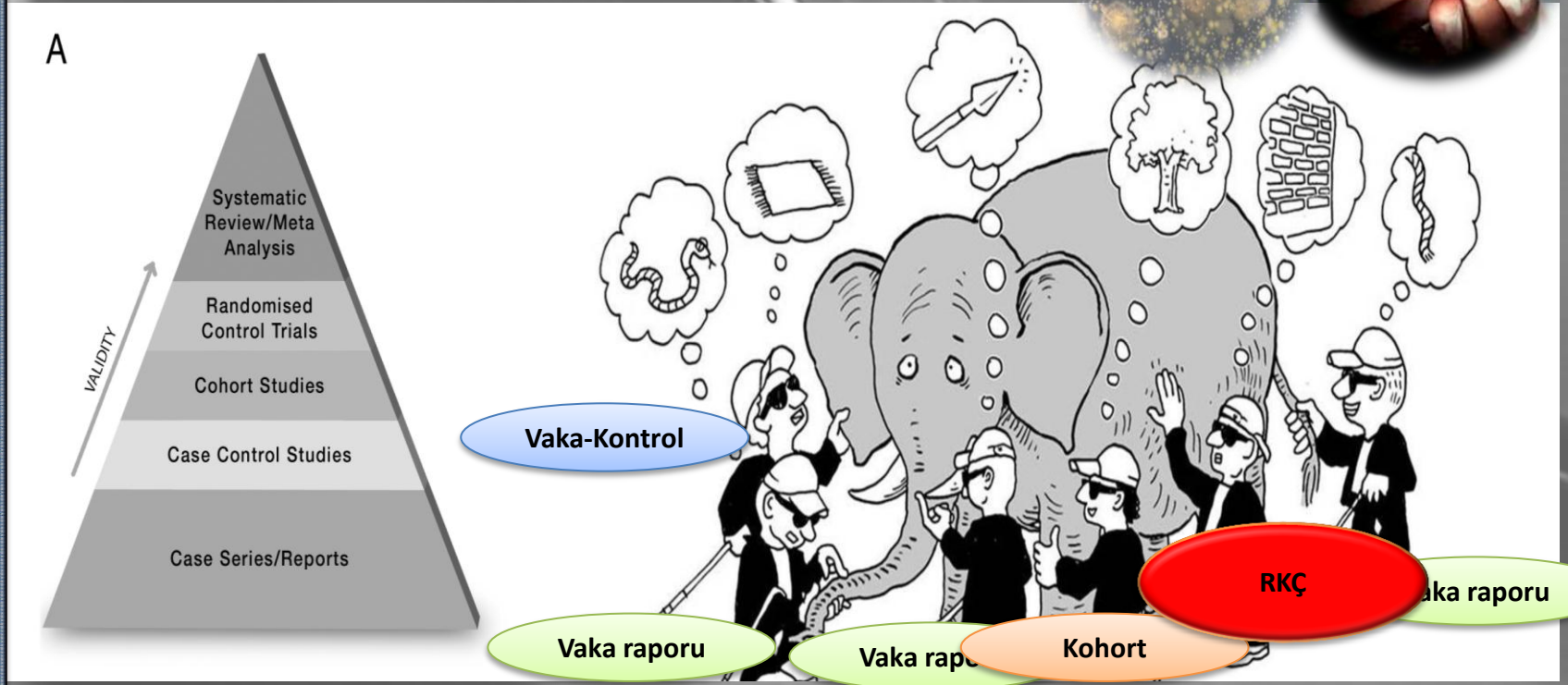
Gerçek

?

Otör görüşü devam

Gerçeğin peşinde…

KDT



KDT Jargonu…Ve Toksikolojide Durum Ne?

Öneri Düzeyleri

CLASS I (STRONG)	Benefit >>> Risk
CLASS IIa (MODERATE)	Benefit >> Risk
CLASS IIb (WEAK)	Benefit ≥ Risk
CLASS III: No Benefit (MODERATE) *(Generally, LOE A or B use only)*	Benefit = Risk
CLASS III: Harm (STRONG)	Risk > Benefit

Kanıt Düzeyleri

LEVEL A	
LEVEL B-R	(Randomized)
LEVEL B-NR	(Nonrandomized)
LEVEL C-LD	(Limited Data)
LEVEL C-EO	(Expert Opinion)

Toksikolojiye KDT açısından bakalım!!!

Toksikolojide Durum; Hadi kılavuz yazalım...

Kanıt Düzeyleri

Yüksek (A) Seviye KD

- ✓ Yüksek kalite 1'den fazla RKÇ, RKÇ'leri konu alan metaanalizler, RKÇ'ler ile aynı yönde kayıtlı çalışmalar
  - ➢ İyi dizayn edilmiş
  - ➢ Klinik sorusu doğrudan test edilmiş
  - ➢ Uygun randomize edilmiş
  - ➢ Körlük sağlanmış
  - ➢ Randomizasyonun gizliliği sağlanmış (Allocation concealment)
  - ➢ Yeterli Örneklem gücüne ulaşılmış
  - ➢ Intention-to-treat analizi yapılmış

Orta (B-R) Seviye KD

- ✓ Orta kalite RKÇ'lerden veya bunları değerlendiren meta-analizlerden elde edilen kanıtlar

Düşük (B-NR) Seviye KD

- ✓ Randomize olmayan ama iyi dizayn edilmiş ve iyi yapılmış gözlemsel veya kayıtlı prospektif çalışmalar

Çok düşük (C-LD) Seviye KD

- ✓ Dizaynında veya uygulanmasında limitasyonları olan randomize veya nonrandomize gözlemsel veya kohort çalışmalar veya bunlardan elde edilen meta-analizler
  - ➢ Yetersiz randomizasyon
  - ➢ Körleme eksikliği
  - ➢ Yetersiz power
  - ➢ Sonlanım noktalarınından bağımsız sonuçlar
  - ➢ Subgrup analizlerine dayanan çalışmalar

Otör Görüşü (C-EO) Seviye KD

- ✓ Kanıtın olmadığı uzman görüşü olarak yapılan bilgiler

Acetaminophen Overdose: A 48-Hour Intravenous *N*-Acetylcysteine Treatment Protocol

Martin J Smilkstein, MD, FACEP*
Denver, Colorado
Alvin C Bronstein, MD, FACEP†
Boulder, Colorado
Christopher Linden, MD, FACEP‡
Worcester, Massachusetts
W Lynn Augenstein, MD, FACEP§
Jacksonville, Florida
Kenneth W Kulig, MD, FACEP‖
Barry H Rumack, MD‖
Denver, Colorado

From the Section of Trauma and Emergency Medicine, Emergency Medicine Research Center, University of Colorado Health Sciences Center, Denver;* Toxicology and Occupational Medicine, Boulder Community Hospital, Boulder, Colorado;† Regional Poison Treatment Center, University of Massachusetts Medical Center, Worcester;‡ Emergency Medicine, University Medical Center, Jacksonville, Florida;§ and Rocky Mountain Poison and Drug Center, University of Colorado Health Sciences Center, Denver.‖

Study objective: *To determine the safety and efficacy of a 48-hour IV N-acetylcysteine (IV NAC) treatment protocol for acute acetaminophen overdose.*

Design: *Nonrandomized trial open to all eligible patients.*

Setting: *Multicenter; hospitals included moderate- and high-volume private, university, and municipal hospitals in urban and suburban settings.*

Type of participants: *Two hundred twenty-three patients were entered. Of these, 179 met inclusion criteria: acute acetaminophen overdose, plasma acetaminophen concentration above the treatment nomogram line, treatment with IV NAC according to the protocol, and sufficient data to determine outcome.*

Interventions: *IV NAC treatment consisted of a loading dose of 140 mg/kg followed by 12 doses of 70 mg/kg every four hours.*

Measurements and main results: *Patients were grouped for analysis according to risk group based on the initial plasma acetaminophen concentration. Hepatotoxicity (aspartate aminotransferase or alanine aminotransferase of more than 1,000 IU/L) developed in 10% (five of 50) of patients at "probable risk" when IV NAC was started within ten hours of acetaminophen ingestion and in 27.1% (23 of 85) when therapy was begun after ten to 24 hours. Among "high-risk" patients first treated 16 to 24 hours after overdose, hepatotoxicity occurred in 57.9% (11 of 19). There were two deaths (two of 179, 1.1%). Adverse reactions resulting from NAC occurred in 32 of 223 cases (14.3%), consisting in 29 of 32 patients (91% of reactions) of transient, patchy, skin erythema or mild urticaria during the*

Sayıları 10'u geçmeyen kontrol grupları tarihsel kohortlara dayanan küçük örneklemli veya genellikle tek kollu yapılmış çalışmalar mevcut.

Para

RKÇ ??

Cochrane Library

Cochrane Database o

Bunlardan hiçbiri toksik alım olan hast
NAC&placebo karşılaştırması yapmı

TOXICOLOGY/ORIGINAL RESEARCH

The Australasian Clinical Toxicology Investigators Collaboration Randomized Trial of Different Loading Infusion Rates of *N*-Acetylcysteine

Fergus Kerr, MBBS, FACEM
Andrew Dawson, FRACP, FRCP(Edin)
Ian M. Whyte, MBBS, FRACP
Nicholas Buckley, MD, FRACP
Lindsay Murray, MBBS, FACEM
Andis Graudins, MBBS, FACEM
Betty Chan, MBBS, FACEM
Barbara Trudinger, BA, MA

From Austin Health, Studley Road, Heidelberg, Victoria, Australia (Kerr); the Department of Clinical Toxicology, Newcastle Mater Hospital, Newcastle, New South Wales, Australia (Dawson, Whyte); The Canberra Hospital, Canberra, Australian Capital Territory, Australia (Buckley); University of Western Australia, Sir Charles Gairdner Hospital, Perth, Western Australia, Australia (Murray); Westmead Hospital, Sydney, New South Wales, Australia (Graudins); Emergency Medicine, Prince of Wales Hospital, Randwick, New South Wales, Australia (Chan); and CMAX, Institute of Drug Technology, Royal Adelaide Hospital, Adelaide, South Australia, Australia (Trudinger).

Diğer RKÇ'ler ise farklı uygulama şekilleri üzerine olan çalışmalar

Intravenous acetylcysteine in paracetamol induced fulminant hepatic failure: a prospective controlled trial

R Keays, P M Harrison, J A Wendon, A Forbes, C Gove, G J M Alexander, Roger Williams

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R Keays, MRCP, *clinical research fellow*
P M Harrison, MRCP, *clinical research fellow*
J A Wendon, MRCP, *clinical research fellow*
A Forbes, MD, *clinical research fellow*
C Gove, PHD, *senior research fellow*
G J M Alexander, MRCP, *senior lecturer*
Roger Williams, FRCP,

Abstract

***Objective*—To see whether intravenous acetylcysteine would improve outcome in patients with fulminant hepatic failure after paracetamol overdose.**

***Design*—A prospective randomised controlled study.**

***Setting*—The Institute of Liver Studies, King's College Hospital, London.**

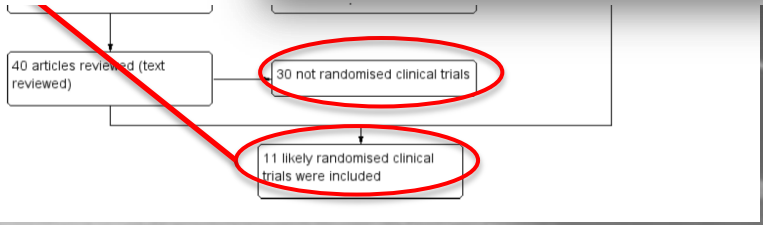
***Patients*—50 consecutive patients (21 male) aged 16-60 with fulminant hepatic failure after par mol overdose who had not previously re acetylcysteine.**

***Interventions*—Conventional intensive live plus either acetylcysteine (25 patients) in the dose regimen as used early after a parace overdose, except that the infusion was con until recovery from encephalopathy or death, equivalent volume of 5% dextrose (25 patients**

***Main outcome measures*—Survival; incide cerebral oedema, renal failure, and hypot requiring inotropic support; liver functi assessed by prolongation of the prothrombin and degree of encephalopathy.**

***Results*—The rate of survival was significantly higher in the acetylcysteine treated group than in the controls (48% (12/25 patients) *v* 20% (5/25), p=0·037, 95% confidence interval for difference in proportions surviving 3% to 53%). Acetylcysteine treated patients had a lower incidence of cerebral oedema (40% (10/25) *v* 68% (17/25); p=0·047, 95% confidence interval for difference in incidence 2% to 54%), and fewer developed hypotension requiring inotropic support (48% (12/25) *v* 80% (20/25);**

One trial (50 participants) found that intravenous acetylcysteine compared with placebo in people with paracetamol-induced fulminant hepatic failure reduced mortality with a difference in survival of 28% (Chi^2 test utilised to assess difference in survival, P = 0.037; 95% CI for difference in survival 3% to 53%) (OR not reported, OR for mortality calculated using Fisher's exact test, OR 0.27, 95% CI 0.08 to 0.95; P = 0.07) (Analysis 5.1: Peto OR 0.29, 95% CI 0.09 to 0.94) (Keays 1991). As shown in Figure 5, this effect was also not statistically significant in a Trial Sequential Analysis and the Trial Sequential Analysis-adjusted CI ranged from 0.01 to 15.8.



Parasetamol & NAC

- ✓ Mevcut en büyük kohorta sahip çalışma derivasyon çalışması.
- ✓ Sonraki yıllarda çıkan küçük ölçekli sayıları 10-15'i geçmeyen ve tarihsel kontrol grubu olan veya tek kollu yapılmış çalışmalar mevcut.
- ✓ Soruya yanıt verecek RKÇ yok. Muhtemelen yapılma ihtimalide yok.

Düşük (B-NR) Seviye KD

✓ Randomize olmayan ama iyi dizayn edilmiş ve iyi yapılmış gözlemsel veya kayıtlı prospektif çalışmalar

Çok düşük (C-LD) Seviye KD

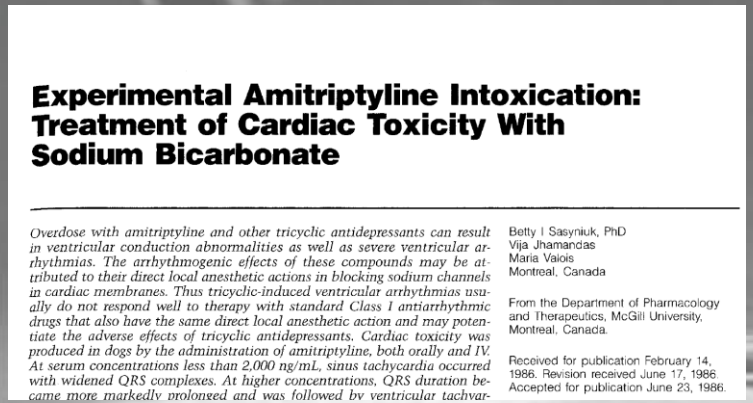
✓ Dizaynında veya uygulanmasında limitasyonları olan randomize veya nonrandomize gözlemsel veya kohort çalışmalar veya bunlardan elde edilen meta-analizler

- ➢ Yetersiz randomizasyon
- ➢ Körleme eksikliği
- ➢ Yetersiz power
- ➢ Sonlanım noktalarınından bağımsız sonuçlar
- ➢ Subgrup analizlerine dayanan çalışmalar

Öneri Düzeyi ???

TCA & $NaHCO_3$

- 1970'lerde insan vaka sunumları ile başlıyor ve sayıları artıyor. Sonrasında ise hayvan deneyleri ile devam ediyor.



Experimental Amitriptyline Intoxication: Treatment of Cardiac Toxicity With Sodium Bicarbonate

Overdose with amitriptyline and other tricyclic antidepressants can result in ventricular conduction abnormalities as well as severe ventricular arrhythmias. The arrhythmogenic effects of these compounds may be attributed to their direct local anesthetic actions in blocking sodium channels in cardiac membranes. Thus tricyclic-induced ventricular arrhythmias usually do not respond well to therapy with standard Class I antiarrhythmic drugs that also have the same direct local anesthetic action and may potentiate the adverse effects of tricyclic antidepressants. Cardiac toxicity was produced in dogs by the administration of amitriptyline, both orally and IV. At serum concentrations less than 2,000 ng/mL, sinus tachycardia occurred with widened QRS complexes. At higher concentrations, QRS duration became more markedly prolonged and was followed by ventricular tachyar-

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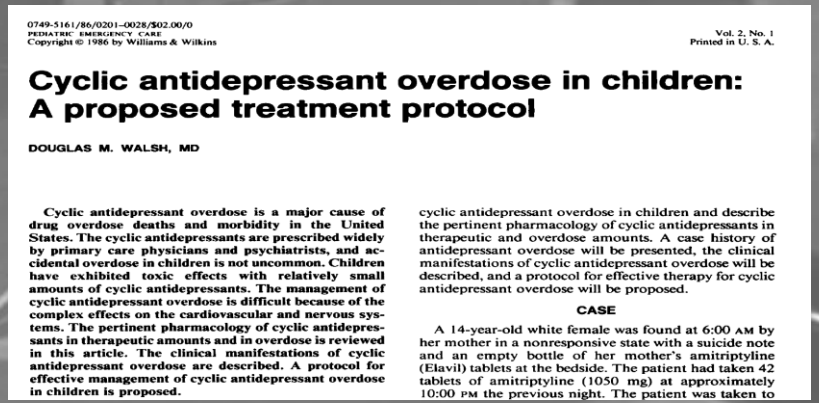
Received for publication February 14, 1986. Revision received June 17, 1986. Accepted for publication June 23, 1986.



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PEDIATRIC EMERGENCY CARE

Vol. 2, No. 1
Printed in U. S. A.

Cyclic antidepressant overdose in children: A proposed treatment protocol

DOUGLAS M. WALSH, MD

Cyclic antidepressant overdose is a major cause of drug overdose deaths and morbidity in the United States. The cyclic antidepressants are prescribed widely by primary care physicians and psychiatrists, and accidental overdose in children is not uncommon. Children have exhibited toxic effects with relatively small amounts of cyclic antidepressants. The management of cyclic antidepressant overdose is difficult because of the complex effects on the cardiovascular and nervous systems. The pertinent pharmacology of cyclic antidepressants in therapeutic amounts and in overdose is reviewed in this article. The clinical manifestations of cyclic antidepressant overdose are described. A protocol for effective management of cyclic antidepressant overdose in children is proposed.

cyclic antidepressant overdose in children and describe the pertinent pharmacology of cyclic antidepressants in therapeutic and overdose amounts. A case history of antidepressant overdose will be presented, the clinical manifestations of cyclic antidepressant overdose will be described, and a protocol for effective therapy for cyclic antidepressant overdose will be proposed.

CASE

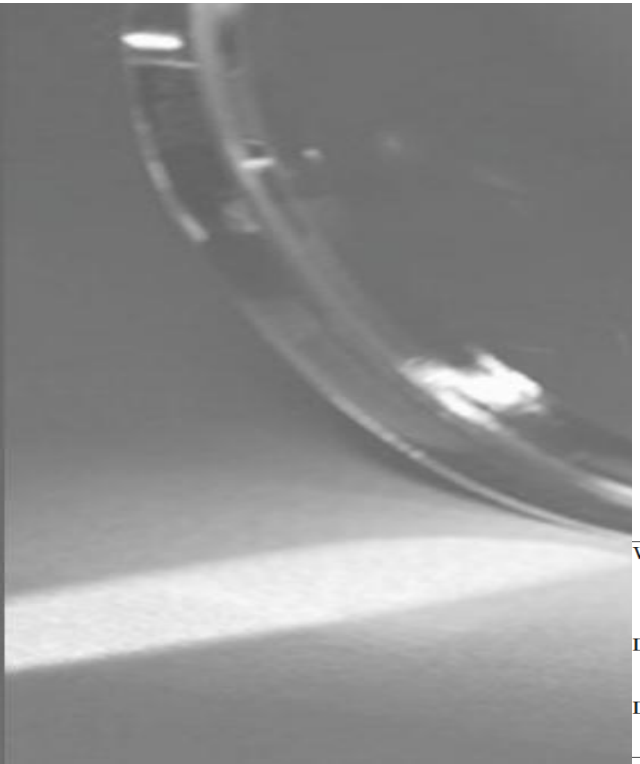
A 14-year-old white female was found at 6:00 AM by her mother in a nonresponsive state with a suicide note and an empty bottle of her mother's amitriptyline (Elavil) tablets at the bedside. The patient had taken 42 tablets of amitriptyline (1050 mg) at approximately 10:00 PM the previous night. The patient was taken to

Review Article

Emergency Medicine

Plasma alkalinization for tricyclic antidepressant toxicity: A systematic review

Konrad Blackman,[1] Simon G A Brown[1] and Garry J Wilkes[2]
Departments of Emergency Medicine, [1]Royal Hobart Hospital, Hobart Tasmania, and [2]Bunbury Regional Hospital, Western Australia, Australia



Hoffman 1993[28]	Observation	91 adults and children	Hypotension, arrhythmias and QRS prolongation	Alkalinization to pH 7.50–7.55	Twenty out of 21 patients, correction of hypotension in 1 h; 39 out of 49 patients correction of QRS prolongation
Koppel 1992[29]	Observation	184 adults	8 cases of cardiac disturbances	100 mmol bicarbonate	Four of 8 reverted to sinus rhythm
Bismuth 1968[34]	Case report	1 adult	Hypotension, VT, delayed recurrence (30 h) of hypotension and wide complex tachycardia	Treatment of delayed arrhythmia with 150 mmol bicarbonate	Resolution of arrhythmia within 5 min of bicarbonate
Kingston 1979[35]	Case report	1 adult	Hypotension, acidaemia pH 7.17, seizure 5 VF arrests	Physostigmine, lignocaine, bicarbonate, intubation, hyperventilation to pH 7.54	QRS narrowed in response to hyperventilation
Hoffman 1981[39]	Case report	1 adult	Hypotension, wide QRS pH 7.29	88 then 44 mEq bicarbonate	Rapid narrowing of QRS
Bessen 1983[36]	Case report	1 adult	Comatose on arrival, pH 7.44, developed pulseless VT	Initially dopamine and 1 L volume load, intubated and hyperventilated to pH 7.65	Improvement in BP, no further arrhythmias
Molloy 1984[41]	Case report	1 adult	Coma, hypotension, developed VT	Intubated pH 7.36, pH raised to 7.52 by 50 mmol bicarbonate, two further episodes VT treated with bicarbonate	Rapid resolution of arrhythmias with each bolus of bicarbonate
Hodes 1984[37]	Case report	1 infant	Wide QRS, first pH 7.14, pulseless	Bicarbonate plus hyperventilation (pH 7.5 and Pco_2 26)	Return of pulse after 1 h
Bessen 1985[40]	Case report	3 cases	Wide QRS	Hyperventilation	Narrowing of QRS
Wrenn 1992[33]	Case report	2 adults	Wide QRS, various ventricular arrhythmias	Aggressive bicarbonate and hyperventilation to peak pH 7.83 and 7.66, respectively,	Both died
Diltoer 1996[38]	Case report	1 adult	VT	Bicarbonate infusion raising pH from 7.4–7.5 over 24 h	Reversion to ectopic atrial tachycardia
Dequin 1994[48]	Case report	1 adult	Seizures and hypotension	Intubation, ventilation, bicarbonate, adrenaline infusion	Few details

Journal of Toxicology
CLINICAL TOXICOLOGY
Vol. 41, No. 4, pp. 331–338, 2003

ARTICLE

Variability of Recommendations for Serum Alkalinization in Tricyclic Antidepressant Overdose: A Survey of U.S. Poison Center Medical Directors[#]

Donna L. Seger, M.D.,[1,2,*] Christina Hantsch, M.D.,[3,4] Thomas Zavoral, M.D.,[1,‡] and Keith Wrenn, M.D.[1]

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TCA & $NaHCO_3$

Guidelines in Emergency Medicine Network (GEMNet): guideline for the management of tricyclic antidepressant overdose

Richard Body, Tom Bartram, Fawad Azam, Kevin Mackway-Jones

Emergency Department, Manchester Royal Infirmary, Manchester, UK

Correspondence to

ABSTRACT

- The Guidelines in Emergency Medicine Netwo (GEMNet) has been created to promote be medical practice in a range of conditio

meta-analizler

- Yetersiz randomizasyon
- Körleme eksikliği
- Yetersiz power
- Sonlanım noktalarınından bağımsız sonuçlar
- Subgrup analizlerine dayanan çalışmalar

Recommendations

- Sodium bicarbonate is indicated for the treatment of dysrhythmias or hypotension associated with TCA overdose **(Grade C)**.
- Sodium bicarbonate may be considered for the treatment of QRS prolongation (>100 ms) associated with TCA overdose **(Grade E)**.
- The treatment of dysrhythmias or hypotension should include alkalinisation to a serum pH of 7.45–7.55 **(Grade E)**.

A Potential Role for Glucagon in the Treatment of Drug-Induced Symptomatic Bradycardia*

Jeffrey N. Love, MD; Deepak K. Sachdeva, MD; Edward S. Bessman, MD; Liesl A. Curtis, MD; and John M. Howell, MD

Nine cases of symptomatic bradycardia are presented in which treatment with intravenous glucagon was administered when atropine failed to improve the patient's condition significantly. Although the cause often was not obvious at presentation, all nine subjects took oral medications that could have contributed to the development of symptomatic bradycardia. Eight of nine patients demonstrated clinical improvement 5 to 10 min after glucagon administration, which was consistent with its peak clinical action. Beta-blockers, calcium channel blockers, and digoxin were ultimately thought to have contributed to the majority of these presentations. This report suggests that glucagon may have a role in the treatment of symptomatic bradycardia, particularly in the presence of beta-adrenergic blockade and perhaps calcium channel blockade. Furthermore, the results in these cases suggest that future clinical trials should not be limited to drug-induced symptomatic bradycardia. *(CHEST 1998; 114:323-326)*

Beta Blocker Overdoses

To the Editor:

The following case studies present two patients with beta blocker overdoses.

Case 1: A 27-year-old woman who had ingested 40 80-mg Inderal® tablets less than one hour before was admitted to the emergency department. She was given ipecac and within minutes suffered cardiovascular decompensation. Her pulse was 40 and blood pressure was 55/30 mm Hg. She was given 7.5 mg glucagon IVP. Within minutes her pulse and blood pressure were restored to normal range. They remained stable for the duration of her emergency treatment. She was transferred to the MICU on a continuous infusion of glucagon at 2.5 mg/h. She was weaned from the infusion after 12 hours and was discharged within the next 72 hours without incident.

Case 2: Paramedics were called to a residence because of a report that a young woman had taken 100 40-mg Inderal® tablets. When they arrived, the patient was semiconscious, had a weak pulse, and no apparent blood pressure. An IV line was started and she was transported to the ED. On arrival CPR was in progress and the rhythm had deteriorated from sinus bradycardia to asystole. After extensive resuscitation techniques were applied the patient was pronounced dead. Only 3 mg glucagon were available in the ED. Two more were obtained 30 minutes after the patient arrived.

These cases point out several clear lessons. First, the rapidity of onset of cardiovascular compromise in overdose of beta-blocking agents, particularly Inderal®, should cause the emergency physician to be very cautious in the use of ipecac in these patients. Ipecac is relatively contraindicated

BEST EVIDENCE TOPIC REPORTS

Towards evidence based emergency medicine: best BETs from the Manchester Royal Infirmary

Edited by K Mackway-Jones

Table 4

Author, date and country	Patient group	Study type (level of evidence)	Outcomes	Key results	Study weaknesses
Peterson CD *et al*, 1984, USA	2 cases of mixed overdose including β blockers	Case report	Survival	Bolus of 12 mg and 4 mg used to reverse cardiogenic shock	Case report
Weinstein RS *et al*, 1985, USA	1 case of propanolol overdose	Case report	Survival	80 mg glucagon intravenous given over 18 hours to reverse cardiogenic shock	Case report
Khan MI and Miller MT, 1985, South Africa	1 case of propanolol overdose	Case report	Survival	Use of 20 mg glucagon to reverse cardiogenic shock	Case report
Tai YT *et al*, 1990, Hong Kong	Single case of metoprolol overdose	Case report	Survival	1 mg of glucagon is claimed to have reversed cardiogenic shock	Case report
O'Mahony D *et al*, 1990, Eire	One patient after oxprenolol overdose	Case report	Survival	30 mg bolus with 10 mg/h infusion of glucagon, successful resuscitation from beta blocker induced cardiogenic shock	Case report
Mansell PI, 1990, Australia	Single mixed overdose including propanolol	Case report	Survival	Bolus of 4 mg glucagon with an infusion of 10 mg in 3 hours	Case report

Yayın biası çok yüksek!!!

B-bloker&Glukagon

Glucagon in β-Blocker and Calcium Channel Blocker Overdoses: A Systematic Review[#]

Benoit Bailey, M.D., M.Sc., F.R.C.P.C.*

Divisions of Emergency Medicine, Clinical Pharmacology, and Toxicology, Department of Pediatrics, Hôpital Ste-Justine, Université de Montréal, Montréal, Qc, Canada

Background. Glucagon is usually accepted as part of the standard treatment in the management of patients with β-blocker and calcium channel blocker overdoses. *Methods.* A systematic review was done in order to evaluate the evidence supporting glucagon use in β-blocker and calcium channel blocker overdoses. Studies evaluating glucagon for those uses were identified using the Cochrane Database of Systematic Reviews, the Cochrane Controlled Trials Register, MedLine, ToxLine, and EMBASE searches, as well as reviewing medical toxicology textbooks and references of identified articles. Only controlled studies of human or animal studies were included, the latter only when it was an in vivo model of acute poisoning. The quality of the included studies was assessed. *Results.* The search found no study in humans but identified 30 in animals. In the five studies of animal models of β-blocker overdose included, glucagon appeared to consistently increase the heart rate at least transiently but appeared to have no effect on mean arterial pressure even though it possibly increased cardiac output. Its effect on the survival rate in animal models of β-blocker overdose was unclear. In the six studies of animal models of calcium channel blocker overdose included, glucagon appeared to increase heart rate and cardiac output and reverse second and third degree AV blocks, all at least transiently. There appeared to be no effect of glucagon on mean arterial pressure although it did increase in one model. Glucagon appeared to have no effect on survival rate. The included studies for both overdoses were not blinded, had limited numbers of animals, and some had inadequate glucagon regime. *Conclusion.* The evidence supporting the use of glucagon in the management of patients with β-blocker and calcium channel blocker overdoses is limited to animal studies.

Clin Toxicol (Phila). 2006;44(1):45-51.

A comparison of vasopressin and glucagon in beta-blocker induced toxicity.

Holger JS[1], Engebretsen KM, Obetz CL, Kleven TL, Harris CR.

Author information

Abstract

OBJECTIVE: We compared the efficacy of vasopressin and glucagon in a porcine model of beta-blocker toxicity. Our primary outcome was survival over 4 hours.

METHODS: Sixteen pigs received a 1-mg/ kg bolus of propranolol IV followed by continuous infusion at 0.25 mg/kg/minute. Toxicity was defined as a 25% decrease in the product of heart rate (HR) and mean arterial pressure (MAP), at which point 20 mL/kg normal saline was rapidly infused. Each pig was randomly assigned to receive either vasopressin or glucagon after the saline bolus. The vasopressin group received a continuous infusion at 0.0028 U/kg/minute, titrated up to a maximum of 0.014 U/ kg/minute. The glucagon group received a 0.05-mg/kg bolus followed by continuous infusion at 0.15 mg/kg/hour. The HR, MAP, systolic BP (SBP), cardiac output (CO), glucose, and pH were monitored for 4 hours from toxicity or until death.

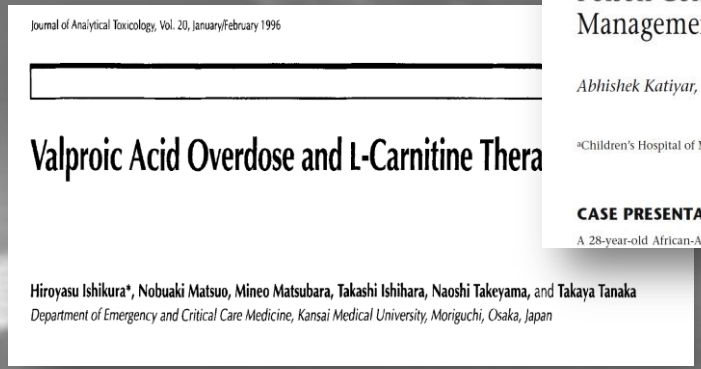
RESULTS: One pig survived at 4 hours (vasopressin group). Analysis of the 4-hour Kaplan-Meier survival curves found no differences between the groups (log-rank test 0.059, p = 0.81). No overall differences were identified in MAP, systolic BP, cardiac output, glucose, pH, or HR. However, over the first hour MAP and SBP were significantly higher in the vasopressin group (p = 0.004, p = 0.006, respectively).

CONCLUSION: In this beta-blocker toxicity model, there were no differences in the survival curves between vasopressin- and glucagon-treated pigs during a 4-hour analysis period. No overall differences were noted in MAP, systolic BP, CO, HR, pH, or glucose levels, although vasopressin treatment yielded higher MAP and systolic BP early in resuscitation.

PMID: 16496493

Valproik asit&L-Carnitin

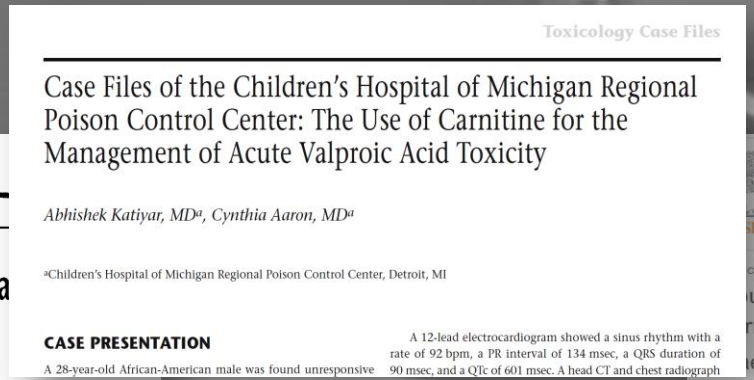
- RKÇ yok, kohort çalışması yok, vaka-kontrol çalışması yok…
- Elimizde sadece vaka raporları var...


Journal of Analytical Toxicology, Vol. 20, January/February 1996

Valproic Acid Overdose and L-Carnitine Thera

Hiroyasu Ishikura*, Nobuaki Matsuo, Mineo Matsubara, Takashi Ishihara, Naoshi Takeyama, and Takaya Tanaka

Department of Emergency and Critical Care Medicine, Kansai Medical University, Moriguchi, Osaka, Japan


Toxicology Case Files

Case Files of the Children's Hospital of Michigan Regional Poison Control Center: The Use of Carnitine for the Management of Acute Valproic Acid Toxicity

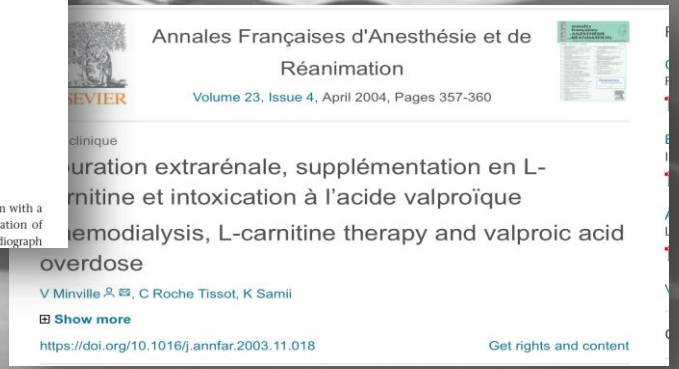
Abhishek Katiyar, MD[a], Cynthia Aaron, MD[a]

[a]Children's Hospital of Michigan Regional Poison Control Center, Detroit, MI

CASE PRESENTATION

A 28-year-old African-American male was found unresponsive

A 12-lead electrocardiogram showed a sinus rhythm with a rate of 92 bpm, a PR interval of 134 msec, a QRS duration of 90 msec, and a QTc of 601 msec. A head CT and chest radiograph


Annales Françaises d'Anesthésie et de Réanimation

Volume 23, Issue 4, April 2004, Pages 357-360

clinique

uration extrarénale, supplémentation en L-nitine et intoxication à l'acide valproïque

emodialysis, L-carnitine therapy and valproic acid overdose

V Minville, C Roche Tissot, K Samii

Show more

https://doi.org/10.1016/j.annfar.2003.11.018

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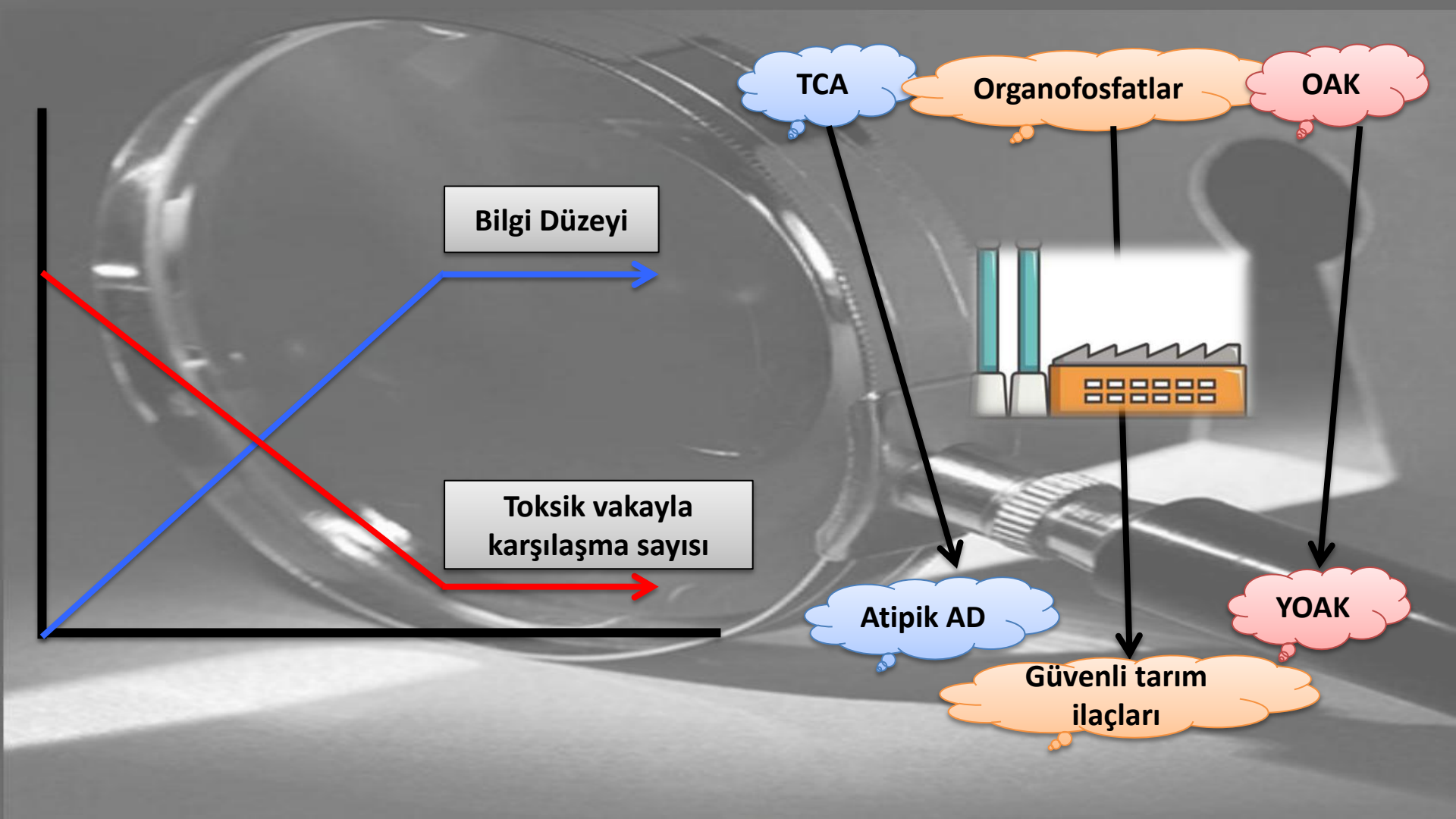
Sorunların Özeti

- Sadece yüksek kanıt düzeyleri ile hareket edersek halihazırda uyguladığımız tedavilerin çoğunluğunu kullanımdan kaldırmamız gerekir!
- Yeni bir uygulamanın rutine girebilmesi için gereken yüksek kalitede çalışmaların yapılması çok uzun zaman alıyor veya imkansız.
- Kanıt düzeyi artıp hakkında ciddi birikim düzeyine sahip olduğumuzda da çoğu zaman çok bir etkinliği kalmıyor.


Bilgi Düzeyi
Toksik vakayla karşılaşma sayısı
TCA
Organofosfatlar
OAK
Atipik AD
Güvenli tarım ilaçları
YOAK

Bir Örnek: YOAK-Dab

- Orjinal çalışmalarda hedef etkinlik ve
  test edilmesi ile sınırlı…
- Olası toksik alım doğası gereği ne biri
  amaçlarda yer alabiliyor.

Vaka raporları ile tanımlıyorsunuz,
elde var olan silahları kullanıyorsunuz;

- ✓ PCC
- ✓ Traneksamik asit
- ✓ Hemodiyaliz
- ✓ İdarucizimap

ETKİLİLİK ve YAN/ADVERS ETKİ GERİ BİLDİRİM FORMU

(Yurt dışı ilaç kullanımı süresince ciddi yan/advers etki, hastalıkta ilerleme veya ölüm halinde; mümkün olan en kısa süre içerisinde, ayrıca tedavi sonrası periyodik olarak doldurulması gereken izlem formu)

Hasta Kimlik Bilgileri:

Adı-Soyadı: **T.C. Kimlik No*:**

Teşhis: **Teşhis Tarihi:**

Hastanın Yaşı:

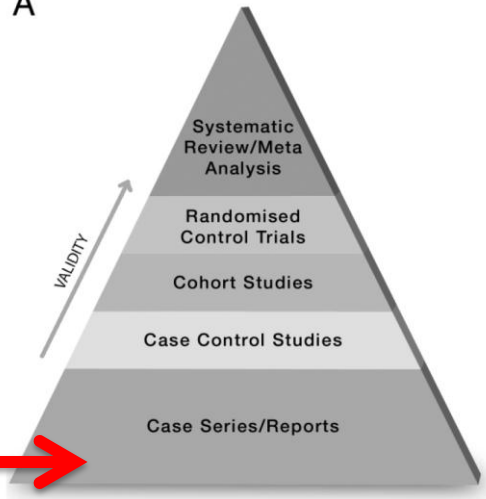
Kullanılan İlacın:

İlacın adı:

Etkin madde:

Dozu ve süresi:

A



Peki ne yapacağız?

KDT'yi doğru anlamak!

Toksikoloji

- Mevcut en güncel kanıtlarla birlikte
- Hastanın tercih ve beklentileri
- Hekim deneyimleri

KDT ne değildir?

Kanıta dayalı tıpta her şeyin cevabını bulamazsınız sadece kanıtı olanların cevabını bulursunuz.

Bir şeyin kanıtının olmaması onun yanlış olabileceğini düşündürse de henüz doğruluğu kanıtlanamamış bir doğru olabileceği de unutulmamalıdır.

Kanıt Piramidi Tartışılıyor!!!

Evid Based Med August 2016 | volume 21 | number 4 |

New evidence pyramid

M Hassan Murad, Noor Asi, Mouaz Alsawas, Fares Alahdab

10.1136/ebmed-2016-110401

Rochester, Minnesota, USA

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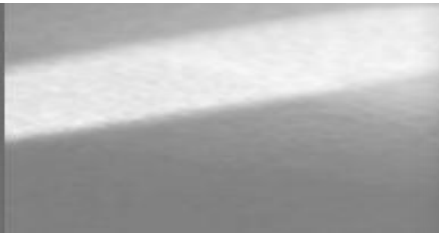
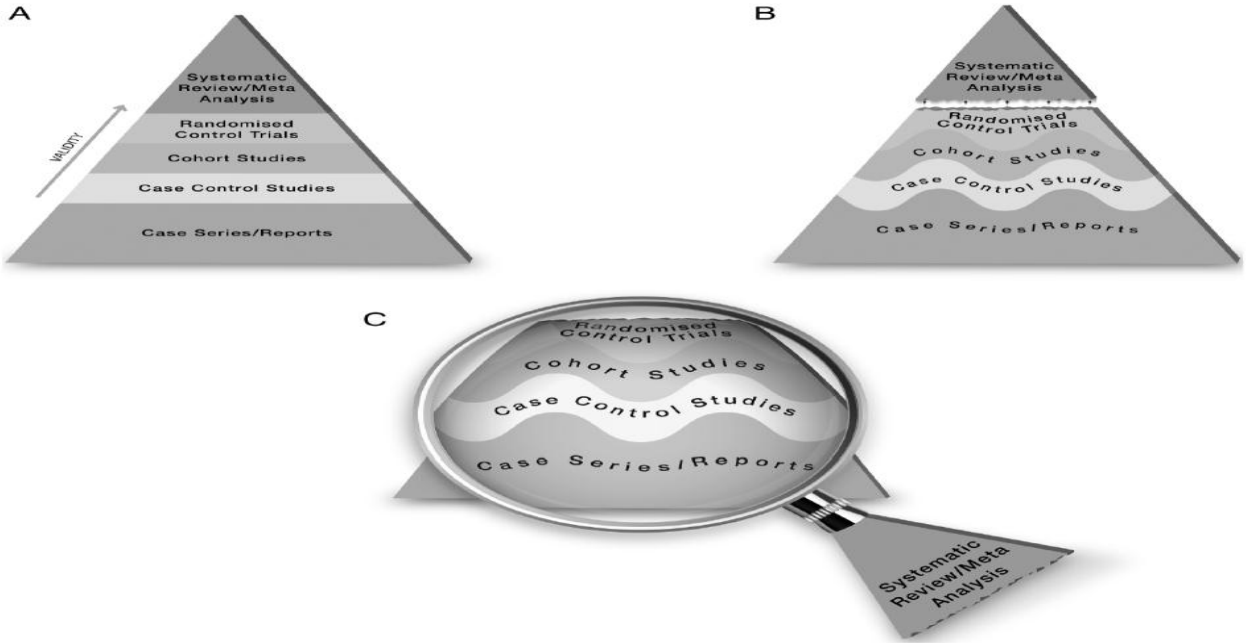
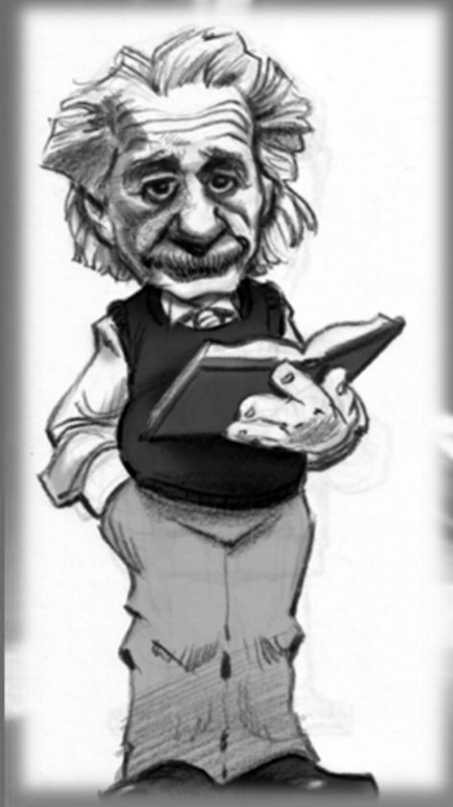




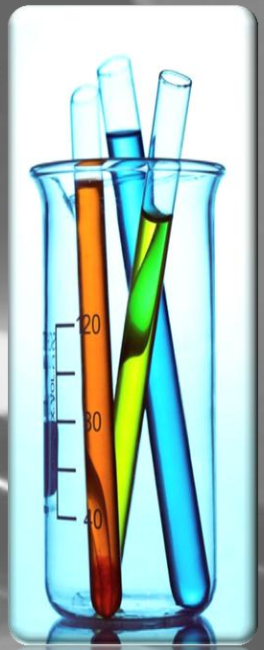
Bize Düşen!!!

- Vaka raporları ve vaka serileri en kıymetli kanıt düzeyimiz.
  - Yayın biası başta olmak üzere bias faktörlerinin önüne geçilmeli
  - Özelleşmiş başlıklarda standart tedavi (standart doz, uygulama vb.) geliştirilmeli ve bu başlıktaki vakalar toplanmalı

Toksikolojide Kanıta Dayalı Tıp



Teşekkürler…



Dr. Şeref Kerem ÇORBACIOĞLU
Keçiören EAH Acil Tıp Kliniği