

實證醫學病例討論

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CASE presentation- Chief Problems

- Bilateral hand tremor and anxiety developed after ceased alcohol consumption yesterday(12/11).
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CASE presentation— Present Illness(1)

- ❑ A 38 y/o male with (1) alcohol dependence (2) major depressive disorder for several years ever tried to receive alcohol abstinence once about half year ago but in vain.
 - ❑ The latest time of alcohol consumption was at about 4 pm on the day before admission.
 - ❑ Last evening, he felt dizziness and got falling down with head contusion and scalp laceration wound. He was sent to our ER for surgical care. At ER, general medical condition showed impaired liver function and negative findings by brain CT.
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CASE presentation— Present Illness(2)

- ❑ General tremor especially bilateral hands, insomnia, anxiety, and nausea/vomiting developed when he went home.
 - ❑ Other associated s/s: palpitation(+), cons. disturbance(-), disorientation(-), and psychomotor agitation/ general irritability(-).
 - ❑ He ever spends lots of time or energy for the alcohol obtaining.
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CASE presentation— Present Illness(3)

- He ever experienced auditory hallucination and delusion of persecution 4 years ago. No another psychotic episode were told.
 - Besides, he claimed that he suffered from depressed mood for 2+ years but never free of depression above 2 months.
 - Other depression associated symptoms including loss of interest(+), insomnia(+), poor appetite(+), poor attention(+), negative thoughts(+), but not suicidal ideation.
 - No previous manic episode was detected.
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CASE presentation— Present Illness(4)

- ❑ Tracing back his history, he started the alcohol drinking since 23 y/o and got heavy drinking after divorced 10 years ago.
 - ❑ He ever drunk 10+ BT of beer per day for a period of time and almost drunk whenever waking up.
 - ❑ He ever got admission to our ward 3 times because of the complication of alcohol consumption.
 - ❑ Therefore, he was admitted to our ward for further management.
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Past History&Personal History

1. Medical illness history:
 - * Peptic ulcer history(+)
 - * Impaired liver function, fatty liver
 2. Surgical or trauma history:
 - * Head injury with scalp laceration wound due to falling down on 12/11
 3. Neurological illness history: Denied of CVA history
 4. Psychiatric illness history:
 - * Major depressive disorder
 - * Alcohol dependence
 5. Substance use history:
 - Alcohol: 1~1.5 BT of 米酒 per day in the recent half year
 - Smoking: 1+ PPD
 - Denied of any illegal substance
 6. Psychosocial stressors: nil
 7. Pre-morbid personality: 隨和, 好相處, 內向
 8. Marital history: divorced for 10 years
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Physical examination

- ❑ Consciousness: clear
 - ❑ Conjunctiva: not pale
 - ❑ Sclera: not icteric
 - ❑ Neck: supple, no lymphadenopathy
 - ❑ Thyroid: no goiter
 - ❑ Chest: symmetric expansion
 - Breathing sound: bilaterally clear
 - Heart sound: regular heart beat
 - ❑ Abdomen: soft, no tenderness
 - Liver and spleen: impalpable
 - Bowel sound: normoactive
 - ❑ Extremities: freely movable, no pitting edema,
tremor over bil. hand
 - ❑ Skin: scalp laceration wound(R't parieto-occipital area)
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Neurological examination

- Cons.: E4V5M6, alert and awakeful
 - Cranial nerves: grossly normal
 - Muscle power: all full
 - Deep tendon reflex: bilaterally symmetric
 - Cerebellar signs: normal
 - Tremor over bil. hands
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Mental status examination(1)

- 1. Appearance:
 - Body build: moderate
 - Facial expression: **restricted**
 - Personal care and hygiene: kempt
 - Dressing and grooming: **bandage dressing over head**
 - Attitude: cooperative
 - 2. Psychomotor activity and behavior:
 - Gait: steady
 - Tremor(+): **over bil. hands**
 - Activity: **hypoactivity**
 - Behavior: disturbed/disorganized behavior(-)
 - destructive/violence behavior(-)
 - Tic, gesture and twitches: nil
 - 3. Affect:
 - Mood: **depressed**
 - Affective expression: **restricted**
 - Appropriateness: appropriate
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Mental status examination(2)

- 4.Speech:
 - Overall quantity and quality:
 - hypotalktive**, coherent and relevant
 - Rate of production: **mild slow**
 - Productivity: **passive**
 - 5.Cognition:
 - Stream of thought: fluent
 - Content of thought: no detectable delusion
 - suicidal idea(-)
 - negative thoughts(+)**
 - motivation for alcohol abstinence(+)**
 - 6.Perception: denied of AH/VH
 - 7.Insight: **emotional**

Impression

- Axis I : Alcohol withdrawal
Alcohol dependence, with physiological dependence
Major depressive disorder

 - Axis II : No diagnosis

 - Axis III: Alcohol withdrawal
Impaired liver function
Fatty liver
Head injury with scalp laceration wound

 - Axis IV : jobless

 - Axis V : GAF 41-50
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Thinking...

- ❑ As our clinical experience, benzodiazepines is a standard treatment for alcohol withdrawal syndrome.
 - ❑ However, how to practice is better in therapeutic success ?
 - ❑ Is fixed-scheduled use better or symptom-triggered use?
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Asking

- May the performance of fixed-scheduled benzodiazepines compared with symptom-triggered use bring a better therapeutic success in middle-age male in-patient with alcohol withdrawal syndrome?

P: Middle-age male in-patient with alcohol withdrawal syndrome

I : Fixed scheduled benzodiazepines

C: Symptom triggered benzodiazepines

O: Therapeutic success in alcohol abstinence

Acquire

- 高雄醫學大學圖書館首頁 →
電子館藏系統 →
實證醫學 →
Cochrane library →
 - Using keywords:
benzodiazepine and alcohol withdrawal
→ 3 results
fixed scheduled benzodiazepine and alcohol withdrawal → 3 results
 - Choose 1 of them after appraisal
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Appraisal

[Review]

Benzodiazepines for alcohol withdrawal

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This record should be cited as: Ntais C, Pakos E, Kyzas P, Ioannidis JPA. Benzodiazepines for alcohol withdrawal. *Cochrane Database of Systematic Reviews* 2005, Issue 3. Art. No.: CD005063. DOI: 10.1002/14651858.CD005063.pub2.

Abstract

□ Background

Alcohol withdrawal syndrome is a cluster of symptoms that occurs in alcohol-dependent people after cessation or reduction in alcohol use. This systematic review focuses on the evidence of benzodiazepines' use in the treatment of alcohol withdrawal symptoms.

□ Objectives

To evaluate the effectiveness and safety of benzodiazepines in the treatment of alcohol withdrawal.

□ **Search strategy**

We searched the Cochrane Central Register of Controlled Trials (*The Cochrane Library* Issue 4, 2004), MEDLINE (1966 to October 2004) and EU-PSI PSI-Tri database with no language and publication restrictions. We also screened references of retrieved articles.

□ **Selection criteria**

All randomized controlled trials examining the effectiveness and safety of a benzodiazepine in comparison with a placebo or other pharmacological intervention or other benzodiazepine were considered.

□ **Data collection and analysis**

Two reviewers independently assessed trial quality and extracted data.

□ **Main results**

Fifty-seven trials, with a total of 4,051 people were included. Despite the considerable number of randomized controlled trials, there was a very large variety of outcomes and of different rating scales and relatively limited quantitative synthesis of data was feasible. Benzodiazepines offered a large benefit against alcohol withdrawal seizures compared to placebo (relative risk [RR] 0.16; 95% confidence interval [CI] 0.04 to 0.69; $p = 0.01$).

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- Benzodiazepines had similar success rates as other drugs (RR 1.00; 95% CI 0.83 to 1.21) or anticonvulsants in particular (RR 0.88; 95% CI 0.60 to 1.30) and offered a significant benefit for seizure control against non-anticonvulsants (RR 0.23; 95% CI 0.07 to 0.75; $p = 0.02$), but not against anticonvulsants (RR 1.99; 95% CI 0.46 to 8.65). Changes in Clinical Institute Withdrawal Assessment for Alcohol (CIWA-Ar) scores at the end of treatment were similar with benzodiazepines versus other drugs, although some small studies showed isolated significant differences for other, less commonly, used scales. Data on other comparisons were very limited, thus making quantitative synthesis for various outcomes not very informative.
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□ **Authors' conclusions**

- Benzodiazepines are effective against alcohol withdrawal symptoms, in particular seizures, when compared to placebo. It is not possible to draw definite conclusions about the relative effectiveness and safety of benzodiazepines against other drugs in alcohol withdrawal, because of the large heterogeneity of the trials both in interventions and assessment of outcomes but the available data do not show prominent differences between benzodiazepines and other drugs in success rates.
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□ **Plain language summary**

Benzodiazepines are more effective than placebo against alcohol withdrawal seizures while they have variable profile against other commonly used treatments

This Cochrane review summarizes evidence from fifty-seven randomized controlled trials evaluating the effectiveness and safety of benzodiazepines in the treatment of alcohol withdrawal symptoms. The available data show that benzodiazepines are effective against alcohol withdrawal seizures when compared to placebo. However, there are no prominent differences between benzodiazepines and other drugs in success rates. Data on safety outcomes are sparse and fragmented. There is a need for larger, well-designed studies in this field.

Result

□ Benzodiazepine (fixed schedule) versus Benzodiazepine (symptom-triggered)

Three trials ([Daepfen 2002](#); [Saitz 1994](#); [Spies 2003](#)), including a total of 262 randomized participants, compared fixed versus symptom-triggered schedules of a benzodiazepine (chlordiazepoxide, oxazepam, flunitrazepam) for various outcomes. There was a small and non-significant benefit of symptom-triggered regimens regarding CIWA-Ar score (change from baseline) at the end of treatment (WMD -0.51; 95% CI -2.36 to 1.35; $p = 0.59$; $p = 0.31$ for between-study heterogeneity), therapeutic success (RR 0.88; 95% CI 0.52 to 1.52; $p = 0.66$; $p = 0.002$ for between-study heterogeneity) and number of withdrawals per arm (RR 1.96; 95% CI 0.50 to 7.70; $p = 0.33$; $p = 0.63$ for between-study heterogeneity). The CIWA-Ar difference was formally significant at 48 hours (WMD -5.70; 95% CI -11.02 to -0.38; $p = 0.04$) but was based on a single small study. Data on all other outcomes were very limited to perform any meaningful quantitative synthesis.

Comparison 05. Benzodiazepine (fixed schedule) versus Benzodiazepine (symptom-triggered)

Outcome title	No. of studies	No. of participants	Statistical method	Effect size
01 CIWA-Ar score (change from baseline) at 48 hrs			Weighted Mean Difference (Random) 95% CI	Subtotals only
02 CIWA-Ar score (change from baseline) at the end of treatment	2	161	Weighted Mean Difference (Random) 95% CI	-0.51 [-2.36, 1.35]
03 Therapeutic success	2	218	Relative Risk (Random) 95% CI	0.88 [0.52, 1.52]
04 Alcohol withdrawal seizures			Relative Risk (Random) 95% CI	Subtotals only
05 Alcohol withdrawal delirium	2	218	Relative Risk (Random) 95% CI	3.06 [0.33, 28.44]
06 Number of withdrawals per arm	2	154	Relative Risk (Random) 95% CI	1.96 [0.50, 7.70]
07 Mortality	3	262	Relative Risk (Random) 95% CI	2.19 [0.21, 22.43]

Discussion

- This systematic review includes data from 57 RCTs with over 4,000 patients with alcohol withdrawal syndrome. Despite the considerable number of RCTs, the large variety of outcomes and rating scales limited considerably the ability to perform a quantitative synthesis of all available data.
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- Data on the comparisons of different benzodiazepines among themselves, benzodiazepine combined with other drug versus other drug, and fixed-schedule versus symptom-triggered regimens of benzodiazepines were very limited, thus making quantitative synthesis for various outcomes either not applicable or not very informative. Based on indirect comparisons, there is no strong evidence at the moment that particular benzodiazepines are more effective than others.
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Apply (Practice)

- ❑ After admission, we used fixed-scheduled benzodiazepines for alcohol withdrawal (lorazepam 3mg qid for withdrawal symptoms/signs controlling).
 - ❑ By our practice, the patient can tolerate the discomfort(only mild hand tremor could be found).
 - ❑ Ten days later, he was free of all withdrawal symptoms. Then we tried to taper the dose of lorazepam gradually.
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Thanks for your attention
