

# Alcohol And Mental Health

Mark Bisson  
Leeds Addiction Unit  
Dual Diagnosis Team  
3<sup>rd</sup> July 2009

# Alcohol And Mental Health

- Alcohol as medication.
- Mood and anxiety disorders.
- Mental illness caused specifically by alcohol use or dependence.

## Relationship Between Drinking And Mental Illness

- Drinking because depressed/anxious?
- Depressed/anxious because drinking?

Leeds Addiction Unit July 2009

## Alcohol As Medication

People with anxiety and/or depression often describe using alcohol as a form of medication.

What benefits do they perceive alcohol to have?

What are the limits of alcohol as an anxiolytic and an antidepressant?

Leeds Addiction Unit July 2009

## GABA

### Gamma-aminobutyric acid

- Neurotransmitter that has a calming effect on the nervous system.
- When GABA activates GABA receptors it results in:
  - Decreased anxiety
  - Relaxation
  - Sedation-coma and possibly death
- Alcohol, barbiturates, benzodiazepines also activate GABA.
- Regular drinking depletes GABA.

Leeds Addiction Unit July 2009

## Serotonin

- Neurotransmitter that plays a role in the sleep/wakefulness cycle and also in mood and emotion.
- Alcohol increases the release of serotonin→ increased drowsiness
- Regular drinking depletes serotonin levels.

Leeds Addiction Unit July 2009

## Alcohol As Medication

- Difficult to maintain the right dose to achieve the anxiolytic effect.
- The feeling of euphoria associated with drinking is very short lived.
- Alcohol depletes GABA.. ↑ feelings of anxiety
- Withdrawal increases feelings of anxiety
- Alcohol depletes serotonin.. ↑ feelings of depression
- Drinking disrupts sleep.. ↑ stress
- Likely to enter a cycle of increased drinking to combat increased feelings of anxiety and depression
- Drinking more heavily likely to affect social relationships and therefore contribute to feelings of low mood

Leeds Addiction Unit July 2009

## Alcohol and Suicide

- Disinhibitive effects of alcohol increase the risk of suicide.
  - 70% of men who commit suicide have drunk alcohol shortly before suicide. (Royal College of Psychiatrists 2004)
  - 40% of men who attempt suicide have an alcohol problem (Royal College of Psychiatrists 2004)
  - 65% of suicides are linked to excessive drinking (DoH 1993)
  - 33% of young people committing suicide do so whilst intoxicated with alcohol (NHS Advisory Service 1994)

Leeds Addiction Unit July 2009

## Depression and Alcohol

- Loss of appetite
  - Weight loss
  - Poor sleep pattern
  - Feelings of sadness
  - Poor concentration
  - Anxiety
- 
- All can be symptoms of depression, and all are also likely to be experienced by problem drinkers.
  - Usually depression is secondary to alcohol use.
  - If so symptoms often remit within a few days of stopping drinking.
  - Definitive diagnosis is not usually possible whilst drinking continues, and treatment is unlikely to be effective.

Leeds Addiction Unit July 2009

## Mental Illness As A Consequence Of Problem Drinking

- Alcoholic Hallucinosiis
- Delirium Tremens
- Pathological Jealousy
- Wernicke/Korsakoff's Psychosis

Leeds Addiction Unit July 2009

# Wernicke-Korsakoff's syndrome

- Drinkers become deficient in B Vitamins because:
  - Alcohol metabolism depletes the bodies stores of B Vitamins
  - Drinkers often have poor diets that are deficient in B Vitamins
  - The presence of alcohol in the stomach reduces absorption of B Vitamins
- Deficiency in B Vitamins produces wernicke's encephalopathy characterised by:
  - Paralysis of eye muscles (ophthalmoplegia)
  - Confusion
  - Lack of muscular co-ordination (ataxia)
- Prescription of oral B Vitamins will reduce the risk of wernickes developing in a problem drinker, but will be ineffective once wernickes begins.
- reversible with parenteral B Vitamins
- If diagnosis is missed then the patient will progress to the next phase, Korsakoff's psychosis,

Leeds Addiction Unit July 2009

# Wernicke-Korsakoff's syndrome

- All three symptoms of wernicke's only present in 10% of cases
- A presumptive diagnosis should be made in any patient undergoing detoxification who has one of the following symptoms:
  - Acute confusion
  - Decreased consciousness level including unconsciousness or coma
  - Memory disturbance
  - Ataxia/unsteadiness
  - Ophthalmoplegia (eye muscle paralysis causing squint or double vision)
  - Nystagmus (involuntary rhythmic oscillation of one or both eyes)
  - Unexplained hypotension with hypothermia.

Leeds Addiction Unit July 2009

# Wernicke-Korsakoff's syndrome

- High risk patients:
  - Intercurrent illness
  - Delirium tremens
  - Alcohol related seizures
  - IV glucose administration or requirement for IV glucose
  - Significant weight loss
  - Signs of malnutrition
  - Recent diarrhoea
  - Recent vomiting
  - Drinking greater than 15 units/day in a person of normal build
  - Peripheral neuropathy
  - Previous history of severe withdrawal, seizures and/or delirium tremens

Leeds Addiction Unit July 2009

# Alcoholic Hallucinosi

- Auditory or visual hallucinations occurring during or after a period of heavy drinking.
- Voices, may give a running commentary, often derogatory
- If delusions are present they may be attempts to explain hallucinations.
- Typically resolves over a period of weeks but can last many months.
- Can be very difficult to differentiate between this and other psychotic illnesses.

Leeds Addiction Unit July 2009

# Delirium Tremens

- Short lived, toxic, confusional state usually occurring in dependant drinkers who have a long history of alcohol problems and have recently reduced their drinking.
  - Significant mortality rate of 5-10% if untreated
  - May precede withdrawal seizures- medical emergency
  - Classic presentation:
    - Clouding of consciousness & confusion
    - Hallucinations affecting any sensory modality (auditory, visual, olfactory, tactile)
    - Marked tremor
  - Usually occurs 24-150 hours after last drink (peaking at 72-96 hours)
  - Typical visual hallucinations: Lilliputian figures, snakes, rats, insects
  - Occupational delusions
  - May be highly suggestible and prone to misinterpret visual stimuli in dimly lit surroundings.
  - Very tremulous, restless, agitated and fearful.
  - Effectively treated by detoxification with benzodiazepines
- Leeds Addiction Unit July 2009

# Pathological Jealousy

- No clear boundary between normal and pathological jealousy
- May occur in response to real or imagined infidelity
- Characterised by:
  - exaggerated responses dominating personal functioning and relationships.
  - Compulsive checking.
  - Frequent, though brief, realisations of the falseness of the belief.
- Often a premorbid history of strong jealousy.
- High risk of violence and homicide
- Both partners must be made aware of the risk, separation is often required to reduce risks.



## References further reading

- The Royal College of Psychiatrists. *Alcohol and Depression - Help is at Hand*. 2004. London, The Royal College of Psychiatrists.
- Department of Health. *Health of the nation key area handbook, mental health*. 1993. London, HMSO
- NHS Advisory Service. *Suicide Prevention: the Challenge Confronted*. 1994. London, HMSO
- Edwards, G. Marshall, E. & Cook, C. *The treatment of drinking problems: a guide for the helping professions*. 3<sup>rd</sup> ed 1997. Cambridge university press.
- Leeds Partnerships NHS Foundation Trust. *2008 Guidelines For The Prevention And Treatment Of Wernicke-Korsakoffs Syndrome*. Unpublished.