

Substance related disorders

**Dept. of Psychiatry, Masaryk
University, Brno**

Classification - categories

- **intoxication**
- **abuse - harmful use**
- **dependence**
- **withdrawal state**
- **psychotic disorder**
- **amnestic disorder**

Intoxication

- **a transient syndrom due to recent substance ingestion that produce clinically significant psychological and physical impairment. These changes disappear when the substance is eliminated from the body.**

Abuse - harmful use

- **refers to maladaptive patterns of substance use that impair health in broad sense (any physical, mental or social harm resulting from excessive consumption)**

Dependence

- **refers to certain physiological and psychological phenomena induced by the repeated taking of substance.**
- **strong desire to take the substance, need to obtain the drug, progressive neglect of alternative sources of satisfaction, the development of tolerance and physical withdrawal state**

Dependence

- **physiological dependence - demonstration either tolerance to the pharmacological effects of the drug or characteristic withdrawal syndrom when the drug use is diminished**
- **non physiological phenomena : desire for the drug, drug seeking behaviour, continued need to obtain the reinforcing properties of the drug**
- **tolerance : state in which after repeated administration, a drug produces a decreased effect or increasing doses are required to produce the same effects**

Withdrawal state

- **a group of symptoms and signs occurring when a drug is reduced in amount or withdrawn which last for limited time**

Alcohol

- **Intoxication** - recent ingestion of alcohol
symptoms :
- mood lability, inappropriate sexual or aggressive behaviour, impaired judgment, social or occupational functioning, which develops during or after alcohol ingestion (slurred speech, incoordination, unsteady gait, nystagmus, impairment in attention, memory), severity of symptoms correlates with the blood concentration (sense of well being - incoordination, irritability - sedation..)

Alcohol

- **Idiosyncratic alcohol intoxication** - pathological drunkenness - changes in behaviour occurring within minutes after taking a small amount of alcohol (aggression, desorientation etc..)

Alcohol withdrawal state

- **abrupt withdrawal from alcohol or just reduce usual intake (symptoms may stave off by futher drinking)**
- **MINOR : shakes onset after 12-18 hours after (vomiting, nausea, sweating, hyperreflexia, elevation of blood pressure, hyperventilation, fever, insomnia, psychomotoric agitation)**

Alcohol withdrawal state

- **DELIRIUM : long history of drinking, onset 2-3 days after clouding of consciousness, disorientation in time and place, impairment of recent memory, perceptual disturbances (hallucinations), agitation, restlessness, tremolous, autonomic disturbances, epileptic seizures**
- **treatment : supportive measures (food, hydratation), nutrition supplementation, thiamine, benzodiazepines - chlordiazepoxid, clomethiazol, doses of those according to severity of symptoms, tapering off slowly)**

Alcohol dependence

- **development of tolerance (a need to use increasing doses to produce same effect), desire, withdrawal state which follow a drop in blood concentration, characteristically appears on waking, after a fall of alcohol concentration during the night.,they may stave off by futher drinking - early morning drinking),memory blackouts**

Alcohol dependence

- **social damages**
- **physical damages (GIT, cardiovascular, malnutrition, neurological etc..)**
- **psychiatric complication of alcohol dependence :depression, suicide, Wernicke - Korsakoff syndrome (nystagmus,ataxie, mental confusion), this stage may lead to Korsakoff psychosis , alcohol dementia, alcohol hallucinosis**

Treatment of alcohol dependence

- **Alcohol detoxification (treatment of withdrawal syndrom - chemical substitution of alcohol by benzodiazepines)**
- **treatment of coexisting disorders**

Treatment of alcohol dependence

- **possibilities of pharmacology :**
- **anticraving therapy - acamprosate, naltrexone**
- **aversive therapy - disulfiram**
- **supportive therapy - vitamins**
- **psychological treatment - supportive, cognitive behavioural, in a therapeutic community, an individual, etc**

Opioids

- The strongest pain killers, sedating effect
- codein, morphin, heroin. Syntetics analgetics
- **intoxification** _ euphoria, apathy, dysphoria, psychomotoric agitation or retardation, impaired judgment that develops during or shortly after opioid use
- severe psychological and physical **dependence**

Opioids

- **withdrawal state** - sweating, yawning, insomnia, piloerection, anorexia, dilated pupils, tremor, abdominal cramp, diarrhea, vomiting, elevated blood pressure, increased respiratory, heart rate, dysphoric mood, aches. **Treatment** - mild: benzodiazepines, analgetics, severe : chemical substitution - methadon, buprenorphin
- **treatment of dependence** - psychological treatment (supportive therapy) , often retaining therapy (lasting for long time) - methadon, buprenorphin

Stimulants

- amphetamines, cocaine, methylphenidate etc
- **intoxication** : immediate effect on mood - euphoria (but may be anxiety, tension, anger), excitement, increased energy, PM agitation, enhanced sense of mastery, grandiose thinking, insomnia, anorexia, talkativeness, overactivity, transient delusional psychosis
- **Treatment** : acute overdose - sedation, management of somatic complications, controlling psychotic symptoms

Stimulants

- **psychological dependence**
- **withdrawal state** : dysphoric mood, depression, anxiety, hunger, sluggishness or agitation, irritability, insomnia, increased activity, craving.
- ***Treatment*** : social, psychological support, antidepressants

Cannabionoids

- **Marihuana, hashish**
- **intoxication : pleasant state of euphory, emotional lability, depersonalization and confusion, disconnected speech, recent memory impairment, increased heart rate, averse rare reactions : panic, psychosis, depression**

Cannabinoids

- **psychological dependence**
- **some clinicians have indentified an amotival syndrome of low drive, poor judgment, loss insight, poor communication as the effect of chronic use of cannabinoids (many years)**

Hallucinogens

- Mescaline, psilocybin, diethylamide, MDMA (+ stimulant), LSD
- **intoxication** (psychic state) : alteration of mood (euphoria), vividness of real or fantasied sensory illusions and hallucinations, synesthesia (overflow from one sensory modality to another), confusion, loss of body boundaries, feeling of grandiosity and omnipotence)

Hallucinogens

- physical signs : pupillary dilatation, tachycardia, sweating, palpitation, tremors etc., possible adverse reaction _ acute panic attacks, psychosis, flashbacks, precipitations of underlying psychosis
- **Treatment** : supportive and reassuring person, diminishing the stimulation around, panic - benzodiazepines, psychosis - neuroleptics
- no dependence
- no withdrawal state

Sedative, hypnotics, anxiolytics

- **Intoxication** :similar to alcohol, mood lability, slurred speech, incoordination, unsteady gate, nystagmus, impairment in attention and memory
- psychological, physical **dependence** - detoxification, substitution with other therapy (psychotherapy)

Sedative, hypnotics, anxiolytics

- **withdrawal** state : autonomic hyperactivity, hand tremor, nausea, vomiting, transient hallucinations, psychomotoric agitation, anxiety
- withdrawal delirium
- risk of grand mal seizures
- **treatment** : tapered off medication slowly (weeks) at the patient with no signs of tolerance or withdrawal state but with long history of using this kind of medication

References

- Waldinger RJ : Psychiatry for medical student, Washington DC : American Psychiatry Press, 1997