SCHIZOPHRENIA SPECTRUM DISORDERS
Psychiatry 2 – Practical # 2

Author: MUDr. Ľubomíra Izáková, PhD.
Supervisor: doc. MUDr. Ján Pečeňák, CSc.

Podporené grantom KEGA č. 099UK-4/2012
PSYCHOTIC – NON-PSYCHOTIC - BORDERLINE

The classification of mental disorders according to severity, regardless of the etiology:

PSYCHOTIC STATE
- the most severe mental state
- manifestation:
  - severe disturbances of:
    - PERCEPTION of reality
    - INTERPRETATION of reality
    - ADAPTATION to reality
    - CONTACT with reality
    - PERSONALITY
  - incomplete, resp. lack of insight into disorder
- psychotic state is not defined by the diagnosis or etiology (BAP)

NON-PSYCHOTIC STATES
- no severe disturbances, no personality disintegration
- some disorders (neuroses, personality disorders) have non-psychotic state as basic characteristics
- may have a more negative impact on patient's functioning as psychosis (OCD)

pragmatic definition: presence of hallucinations and / or delusions (impairment of reality testing)
Historical classification of endogenous psychoses

Kraepelin – Bleuler
(1896)              (1911)
Schizophrenia

- one of the major forms of **psychotic disorders**
- unknown etiology – **endogenous** psychosis
- **biological basis** – brain disorder with structural and functional abnormalities
- heterogenous **clinical presentations** – schizophrenia spectrum disorders
- usually **chronic course** with psychosocial withdrawal

- affects about 1% of the population
- prevalence in men about 1.5 times higher than in women
- typical age of onset: between 15-25 years
  - in women the second peak occurs around the age of menopause
Three clusters of symptoms

- positive symptoms
- negative symptoms
- cognitive symptoms
Possitive symptoms

- **Hallucinations**
  - False sensory perceptions occurring in the absence of relevant external stimulation of the sensory organs
  - Auditory (intrapsychical, from external sources), visual, tactile, gustatory, olfactory hallucinations

- **Thought disturbances**
  - of speed (tachy-, brady psychosis)
  - of content
    - delusions: false beliefs (mostly paranoid, bizarre in nature)
  - of structure (loose associations, incoherent thinking)

- **Disorganised behaviour**
Negative symptoms

- affective flattening
- lack of willed action
- loosing communication skills – „poverty of speech“
- loss of spontaneity
- social withdrawal
- difficulties to understand social situations
Characteristics of negative symptoms

- stable in clinical picture
- chronic – residual
- present form the first episode of schizophrenia
- negative prognostic factor
- associated with disability
- poor response to treatment

- sometimes difficult to distinguish from depression or from adverse effects of antipsychotics
Cognitive symptoms

- poor working memory
- poor social cognition (jokes)
The first episodes of schizophrenia

Character of schizophrenic symptoms in prodromal phase

- 7% positive
- 73% negative
- 20% positive + negative

Häfner, H. et al., 1995

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Symptoms during the course of schizophrenia

- **negative symptoms**: progress in clinical picture during the course of schizophrenia
- **positive symptoms** lose their intensity and orderliness and completeness
Different courses of schizophrenia

- prodromal phase
- initial phase
- acute (active) phases
- remissions (good, partial, poor)
- residual phase

- lethal course in about 10% patients
Types of schizophrenia

On the basis of psychopathology, course, response to treatment:

- **Paranoid schizophrenia**
  - persecutory delusions, good response to treatment and outcome

- **Catatonic schizophrenia**
  - dominant motor disturbances
    - productive form - agitated hyperactivity
    - unproductive form – stupor, rigidity, bizarre postures – waxy flexibility

- **Hebephrenic schizophrenia**
  - early onset, disorganisation of behaviour, incoherence, inappropriate affects

- **Simple schizophrenia**
  - predominant negative symptoms, lack of hallucinations and delusions
    - changes in individualised behaviour

- **Undifferentiated schizophrenia** – mix of symptoms

- **Residual schizophrenia**
Schizophrenia spectrum disorders

- Related to schizophrenia:
  - common *etiopathogenic* basis
  - heterogenous *clinical presentations*

- According to ICD 10: codes F21 – 29
  - schizotypal disorders
  - persistent delusional disorders
  - acute and transient psychotic disorders
  - induced delusional disorder
  - schizoaffective disorders
  - other non-organic psychotic disorders
  - unspecified non-organic psychosis
Diagnostics

- **Psychiatric examination** (disintergation, dissimulation, autism)
  - general and focused questions
  - observation of patient's behaviour during examination
  - objective history
  - course characteristics

- **Psychodiagnostic examination**
  - projective methods: Rorschach test, hand test, associative experiment

- **Differential diagnostic investigations**
  - blood tests, toxicology, CT, MRI, EEG, etc.
Differential diagnosis

- Important characteristics
  - clinical picture (acute, residual symptoms)
  - course
  - duration of symptoms
  - treatment efficacy
  - organic and somatic comorbidity

- Organic causes
- Toxic causes – dual diagnoses with addictions to drugs
- Affective disorders
  - psychotic mania
  - psychotic depression
Therapy of schizophrenia

- symptomatic
  - causal treatment is not known

- complex

- according to time
  - acute (6-8 weeks)
  - maintenance (2-5 years)

- according to health care service utilization
  - hospitalization
  - partial hospitalization (psychiatric sanatorium)
  - outpatient care
Complex therapy of schizophrenia

**PHARMACOTHERAPY**
- antipsychotics
  - typical/atypical
  - monotherapy/combinations
  - peroral/parenteral/depot
- mood stabilisers
- anxiolytics
- hypnotics

**PSYCHOTHERAPY**
- improving functioning
- psychoeducation
- rehabilitation
- resocialisation

+ ECT
+ other biological methods (rTMS)
Antipsychotics
medications that affect integration of psychic functions (antipsychotic effect) + additional effects

1. generation

typical
D2 receptors
α₁, H1, M1

pure
D2 blockers
(haloperidol)

• not ideal efficacy
• not affect all symptoms
• frequent AEs

2. generation

multi-receptor activity

• synergic activity
• wider spectrum of efficacy
• pharmacoresistant states
  • fewer AEs

• clozapine (agranulocytosis)
• risperidone (EPS, PRL)
• paliperidone
• olanzapine (weight gain)
• quetiapine
• ziprasidone (QTc)
• aripiprazole
Forms of antipsychotics

- tablets
- drops
- injections – acute antipsychotic treatment (haloperidol, olanzapine)
- long acting injections (LAI) – depot antipsychotic treatment
  - non-adherence to oral medication (~ 40 %)
  - the first and second generation AP
  - relaps prevention vs stigmatisation (?)
  - administration
    - once per 2-4 weeks
    - deeply intramuscularly
  - prescribed to ~ 20 % patients with schizophrenia
Electroconvulsive therapy

- ECT involves applying a brief electrical pulse to the scalp while the patient is under anesthesia
- the specific reason for the positive action of ECT is unknown
- ECT appears to have many effects (the seizure activity itself causes an alteration of the neurotransmitters, metabolism of the brain, neuroplasticity...)

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Indications

• patients with psychoses:
  • schizophrenia
  • affective disorders (depression, mania)
  • neuroleptic malignant syndrome
  • obsessive-compulsive disorder

• need of rapid treatment response
• pharmacoresistance
• catatonic stupor
• severe risk of suicide
• a previous response to ECT

Contraindications

• increased intracranial pressure
• recent CNS bleeding
• recent myocardial infarction
• pheochromocytoma
• severe somatic disease

AGE, EPILEPSIA, PREGNANCY are not ABSOLUTE CI
Prognosis of schizophrenia

- Negative prognostic factors:
  - early age at onset
  - insidious onset
  - predominantly negative symptoms
  - non-adherence to treatment
  - pharmacoresistance

- From 100 patients:
  - 30 % recover completely
  - 30 % improve greatly, recurrent hospitalisations
  - 30 % need extensive permanent help
  - 10 % commit suicide
Principles of classification

Diagnosis is based on the basis of the patient's symptoms. ICD-10 and DSM-IV set out operational criteria against which a clinical diagnosis can be confirmed (symptoms + duration).

**ICD-10:** codes F20 - 29
SCHIZOPHRENIA, SCHIZOTYPAL AND DELUSIONAL DISORDERS
duration > 1 month

**DSM-IV:** codes 295 – 298.9
SCHIZOPHRENIA AND OTHER PSYCHOTIC DISORDERS
duration > 6 month

**Schneider's first-rank symptoms:** pathognomic for schizophrenia
- audible thoughts (thought echo)
- voices arguing
- voices commenting on his/her actions
- somatic/thought passivity experiences (delusions of control)
- thought withdrawal
- thought insertion – thought broadcasting
- delusional perception

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Any questions?