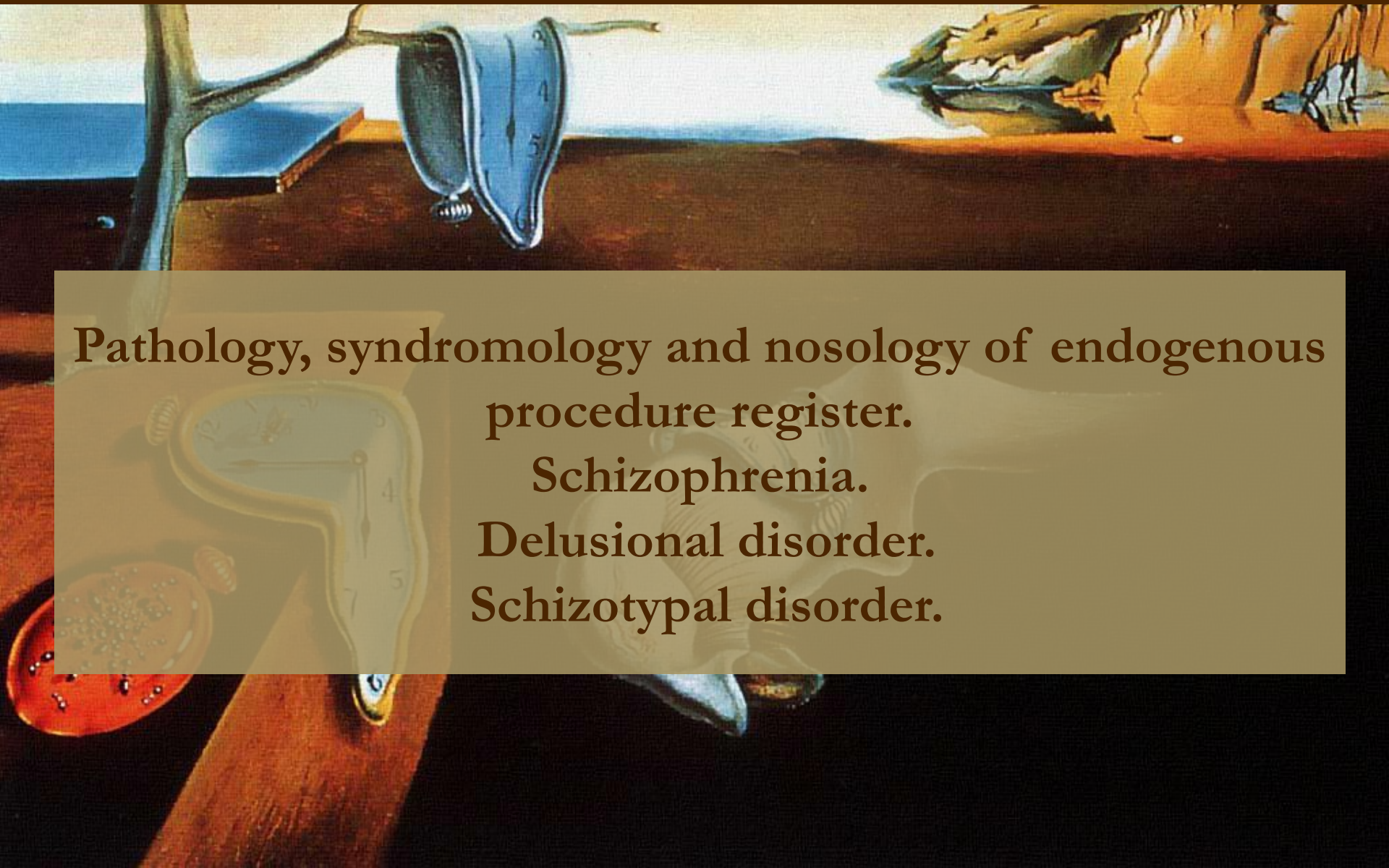
Zaporizhie State Medical University
Faculty of psychiatry, psychotherapy, general and medical psychology, narcology and sexology



Pathology, syndromology and nosology of endogenous procedure register.
Schizophrenia.
Delusional disorder.
Schizotypal disorder.

DEFINITION

Schizophrenia - a progressive endogenous polymorphic mental disorder characterized by dissociation of mental processes, continuous or paroxysmal long course and different expressions of productive (positive) and negative disorders, leading to mental defect in the form of personality changes, invert, emotional and volitional depletion, reduction of energy potential.

Gr..

σχίζω

– cleave

φρήν

– mind, reason

HISTORY OF SCHIZOPHRENIA

Emil Kraepelin: *In 1883, separated schizophrenia (which he called dementia praecox) from bipolar disorder (which he called manic-depressive psychosis) largely on the basis of the clinical course of the syndromes.*

- "Dementia praecox" 1896
- Beginning at puberty
- Progressive course
- The outcome is a particular type of dementia

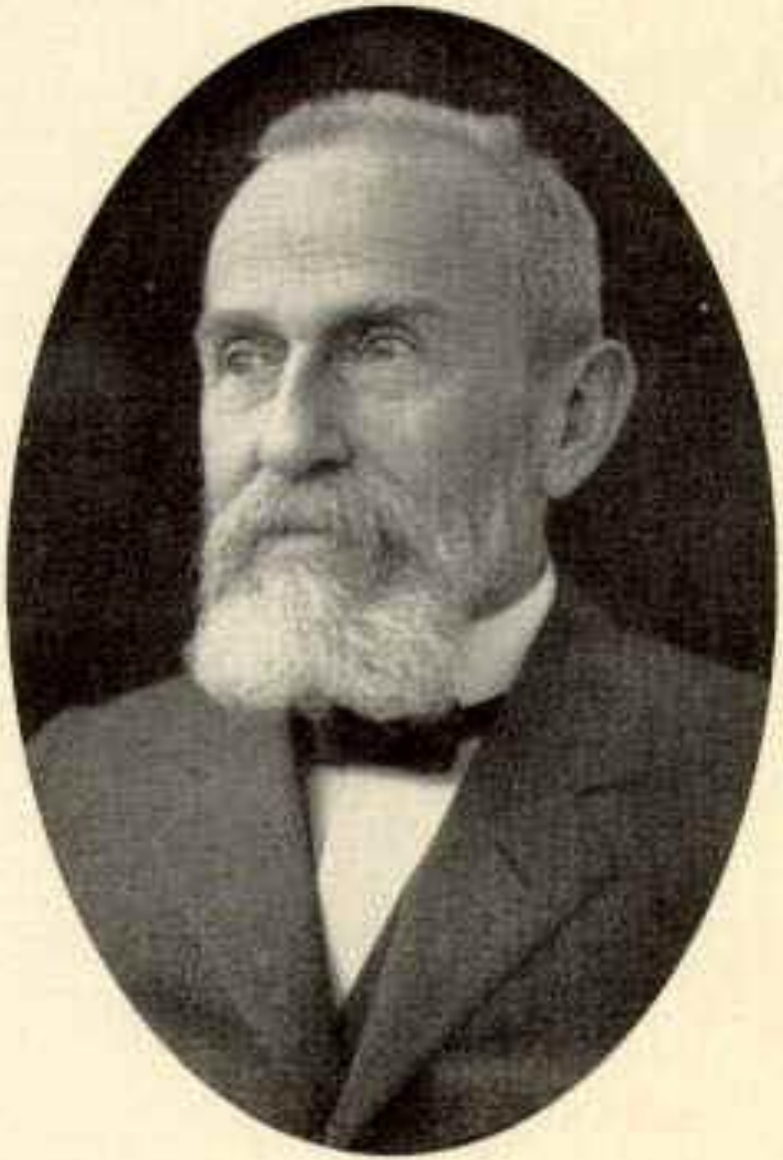
HISTORY OF SCHIZOPHRENIA

Eugen Bleuler

- "Schizophrenia" (1911)
- "Basic symptoms"

Four "A":

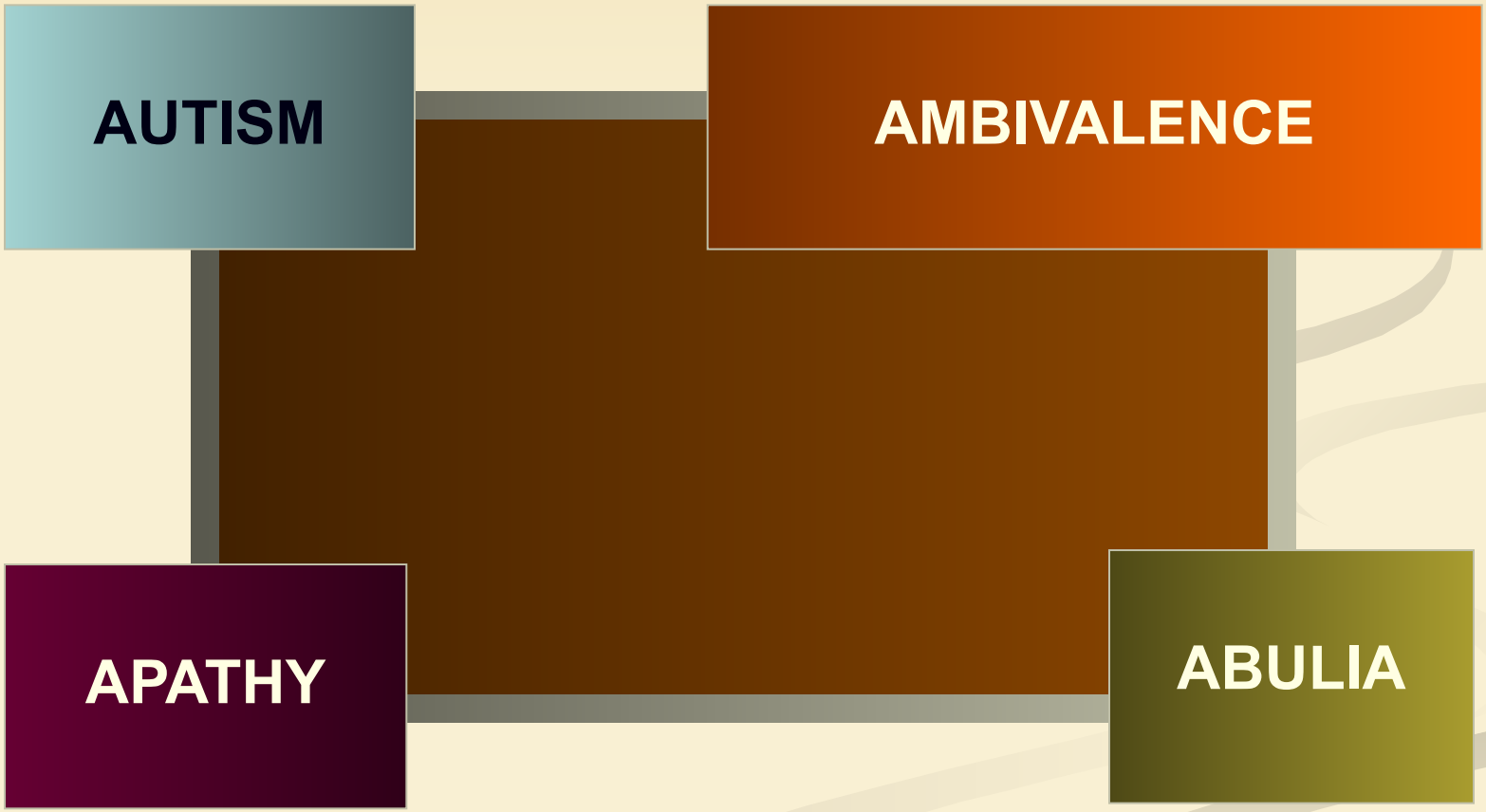
- *Autism*
- *Associate synthesis disorders*
- *Emotional and volitional disorders (Apathy and Ambivalence)*



HISTORY OF SCHIZOPHRENIA

Four «A»

E.BIeuler



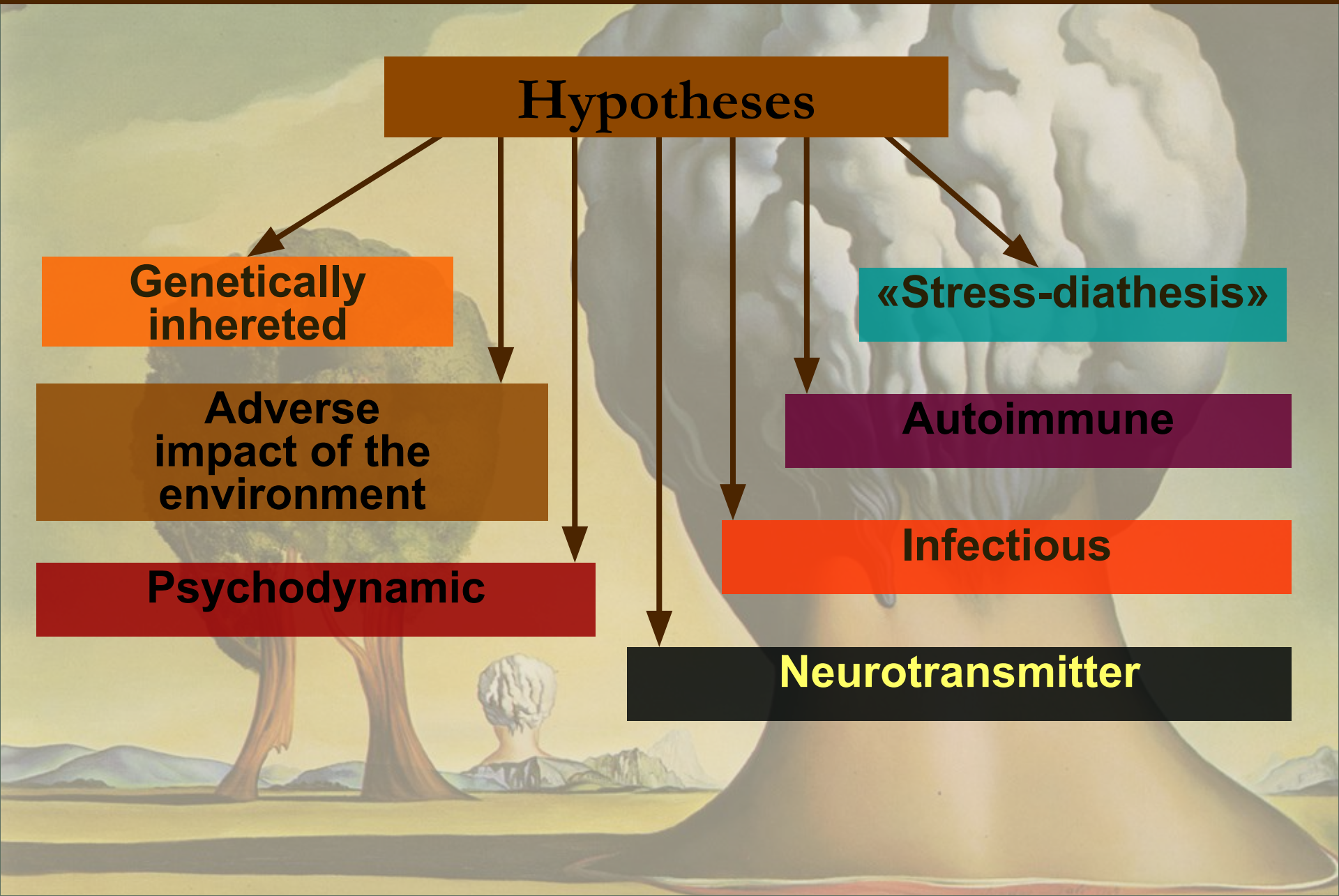
Epidemiology of schizophrenia

- The prevalence of schizophrenia in the world is estimated at between 0.8 - 1%
- The incidence is 15 per 100 000 population
- The highest incidence is in the age between 20 and 29 years
- Male: female ratio is 1: 1

Psychological consequences of schizophrenia

- The most debilitating of all mental illnesses
- Reduced quality of life for the patients and their relatives
- Social "drift" – reduction of the level of patient`s social life
- Rarely marry and have children
- 30% of patients make a suicidal attempt, 10% commit suicide successfully
- Occupy more than half of psychiatric hospital beds
- 75% of patients smoke, 40% abuse alcohol, up to 30% use psychoactive substances
- High health care costs for treatment (in the US - $50 billions).

Etiology of schizophrenia



Pathogenesis of schizophrenia

pathogenetic mechanisms

Neurotransmitter disorders

- The dopamine theory
- increase in dopaminergic activity in the mesolimbic pathway
- decrease in dopaminergic activity in the mesocortical pathway

Serotonin theory

Morphological changes

- atrophy of the prefrontal cortex

Pathogenesis of schizophrenia
2 types of schizophrenia
Crow T. (1985)

POSITIVE	NEGATIVE
▪ hyper-dopaminergic activity	▪ Hypo dopaminergic activity ▪ Atrophy of gray matter in the prefrontal cortex
▪predominance of positive symptoms	▪ predominance of negative symptoms
▪ minimal structural damage	▪ hidden start
▪ relatively satisfactory adaptation	▪ chronic or malignant course
▪ good response to classic neuroleptics (D-receptor blockers)	▪ atypical antipsychotics are more effective (blocking serotonin receptors more than dopamine receptors)

CLINIC OF SCHIZOPHRENIA

CLINICAL PRESENTATION

NEGATIVE SYMPTOMS
(Deficits)
– define nosological diagnosis of schizophrenia

- Violations of will and inclinations
- Emotional disorder
- Formal thought disorders

POSITIVE SYMPTOMS
(productive)
– determine the type of schizopherenia

- Delusions
- Hallucinations
- Psychic automatism
- ONEIROID
- Motor-volitional disorders

«SKHIZIS»

– "Splitting" is a violation of the integrity of the operation of individual spheres of mental activity and the whole mind of the patient

- The process of thinking is disrupted without connection between thoughts
- Emotional processes is characterized by emotional inconsistency, inadequacy, ambivalence
- Autism is the gap between the inner world of the patient and the outside world
- The loss of the boundaries of the personality: the feeling that one's own mental processes is imposed, “is made" by someone from outside (psychic automatism with the syndrome Kandinsky-Clerambault)
- Volitional processes is the loss of a single rod willed person, guided human activity that defines its behavior.

Classification

Clinical forms

- F20.0 Paranoid schizophrenia
- F20.1 Hebephrenic schizophrenia
- F20.3 Undifferentiated schizophrenia
- F20.4 Post schizophrenic depression
- F20.5 / Residual Schizophrenia
- F20.6 / simple type of schizophrenia
- F20.8 / other type of schizophrenia
- F20.9 / Schizophrenia, unspecified

Types of course

- F20.x0 continuous;
- F20.x1 episodic with progressive defect;
- F20.x2 episodic stable defect;
- F20.x3 remitting episodic (recurrent);
- F20.x7 other;
- F20.x9 observation period less than a year.

A simple form of schizophrenia

- There are no positive symptoms

- negative symptoms grow rapidly, reaching a degree of schizophrenic defect

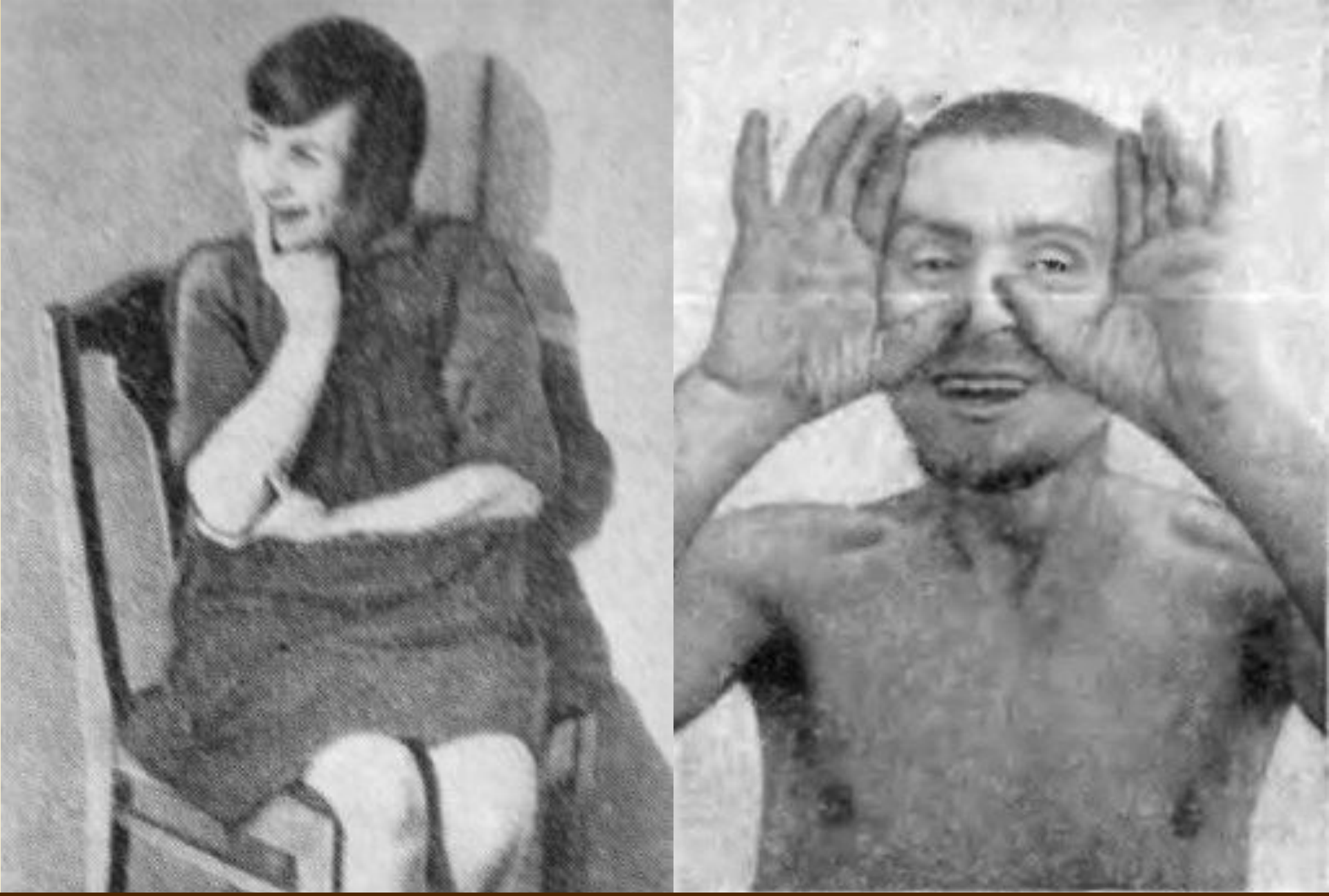
- The flow is continuous, progressive

A simple form of schizophrenia
(Anorexia due to apathy abulic syndrome)

Hebephrenic schizophrenia

- Starting at adolescence, young adulthood

- Hebephrenia syndrome dominate (including emotional and volitional and behavioral disorders: silliness, grimacing, disinhibition inclinations, jumps, dancing, inappropriate jokes, foul language, may prove unwarranted aggression). On par with this catatonic inclusions may be present.
- Sometimes - occasional hallucinations and individual delusional experiences
- The flow is malignant, continuous
- Stop of mental development at the age of onset of the disease



hebephrenic schizophrenia (hebephrenic excitation)

Paranoid schizophrenia

- Hallucinatory-paranoid syndrome dominates.
- Possible transformation syndrome: paranoiac -> paranoid -> paraphrenic
- Duration is continuous or paroxysmal
- continuously-progressive and attack-like progressive

Paranoid schizophrenia
(Pretentious posture, hallucinatory-paranoid syndrome)

Paranoid schizophrenia
(Paraphrenic syndrome)

Catatonic schizophrenia

- It begins with an episode of psychomotor agitation.
- Leading syndrome – catatonic

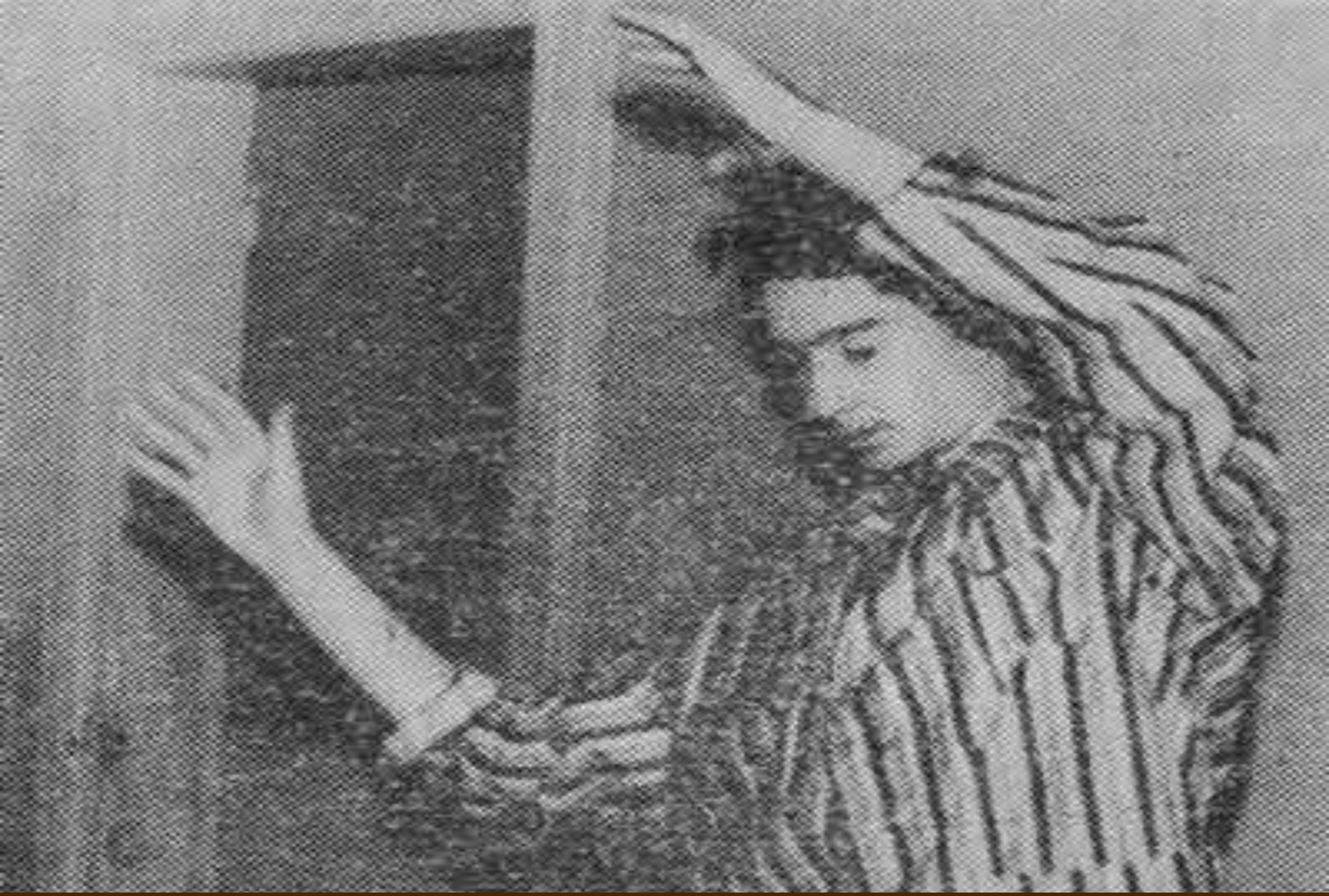
  Meets basic criteria for Schizophrenia

  At least 2 catatonic symptoms predominate:

  Stupor or motor immobility (catalepsy or waxy flexibility)

–Hyperactivity w/o apparent purpose or not influenced by external stimulation

- Mutism or marked negativism
- Peculiar posturing, stereotypes, or mannerisms
- Echolalia, echomimia, echopraxia
- *variants:*
- - Lucid (light) catatonia (without impairment of consciousness, has a malignant course)
- oneiric catatonia (with polymorphic productive symptoms, relatively mild course)



Catatonic schizophrenia (waxy flexibility)

Catatonic schizophrenia (waxy flexibility, a symptom of the proboscis)

Catatonic schizophrenia

Febrile schizophrenia

oneiric bouts of catatonia, accompanied by a rise in temperature and the emergence of a serious physical disorders

- With a significant rise in temperature (more than 40), and the development of trophic disorders represents a threat to the life of patients (!)

- Requires differential diagnosis with neuroleptic malignant syndrome

- requires the use of high doses of chlorpromazine and / or electro-convulsive therapy

Schizophrenic "defect"

– irreversible personality changes occur during the course of the disease and combine negative symptoms, residual symptoms of active process and personal qualities of an individual

Types of schizophrenic "defect"

- **Apatite-abulic -** the most common defect of emotional and volitional spheres (passivity, inactivity, lack of initiative, indifference to their appearance, health, food, living conditions, untidiness, loss of interest to communication, decrease in social status etc.).

- **Asthenic -** negative symptoms include low intelligence,levels of knowledge and skills. While pre-existing skills are preserved, the level of mental activity of the person is reduced, with the signs of psychic asthenia (vulnerability, sensitivity), exhaustion, dependency, self-doubts.

- **Neurotic -** with the background of emotional blunting, the picture is blurred with the prevalence of disorders of thinking and complaints like neurosis.
- **Psychopathic -** sharp negative changes in the emotional and intellectual spheres, anxiety, instability.

- **Pseudo organic -** psychopathic, combined with the slowing of thought and instinct`s disinhibition.

Types of schizophrenic "defect"

- **Thymopathic -** "acquired cyclothymia."
- **Hyperesthenic -** appearance after the attack before unusual traits: punctuality, strict regulation regime, the "correctness" and the hyper-social and other**.**
- **Paranoid -** most pronounced in the area of disorders of thinking, intelligence stored, negative symptoms expressed moderately. In the structure of the defect - residual delusional and hallucinatory experiences, there is tendency to paranoid ideas, with no emotional color and their tendency to expand and systematize.
- **Hypomania -** a kind of dissociation of psychic functions without adequate emotional response**.**
- **Mixed -** a combination of different types.

The prognosis for schizophrenia

- It depends on the type of disease
- The earlier debut, the worse is the prognosis
- Prognosis is better if affective symptoms are prevalent in the clinical picture
- Prognosis is worse for patients with poor premorbid background
- The forecast is worse for the negative schizophrenia than for the positive (by Crow T.)
- Prognosis is worse in the absence of criticism to disease and poor compliance (willingness to follow the doctor's prescriptions)
- When properly chosen therapy and good social conditions can lead to good social adaptation of patients

Treatment of SCHIZOPHRENIA

STAGES OF TREATMENT

№	stage	purpose	type of treatment	duration
I	active therapy	-Normalization of behavior, elimination of psychomotor gitation -Reduction of severity – reduction of psychotic symptoms -A partial resumption of criticism	stationary	8 - 12 weeks
II	The stabilizing treatment	-Regression of residual positive symptoms, and reduction of negative, affective, cognitive symptoms Raising the level of social adaptation	outpatient, stationary	more than 6 months
III	Preventive (supporting) antipsychotic therapy	-Maintaining an optimal level of social functioning	outpatient	more than 3 years

Treatment of schizophrenia

Biological methods (insulin-coma therapy, electro-convulsive therapy)

psychopharmacology (Antipsychotics)

psychotherapy

THERAPY

BIOLOGICAL

PHARMACOTHERAPY

detoxication

NEUROMETABOLIC
(B3, B6, Zn, Mg)

Antipsychotics (chlorpromazine, galloperidol, risperon etc.).

SYMPTOMATIC
- tranquilizers (sibazon, Phenazepamum etc.)
- timostabilizatory (valprokom, carbamazepine)
- antidepressants (amitriptillin, melitor et al.)

"Shock" (electroconvulsive therapy, atropino-insulincomatose therapy)

pyrogenic (malyaro-, sulfazintherapy)

PSYCHOSOCIAL

Psychotherapy with patients

Psycho-educational sessions with patients' relatives

Correction of side effects of neuroleptic treatment (extrapyramidal disorders)
-anticholinergics (tsiklodol, neomidantan)
-nonselective β-blockers

The history of the development of biological therapy

- **Pyrogenic therapy -** (1918) for the treatment of progressive paralysis (a form of syphilis of the brain), 1924 -sulfozintherapy (in / m 1% sulfur slurry in olive oil) for the treatment of schizophrenia. At the present time not used.

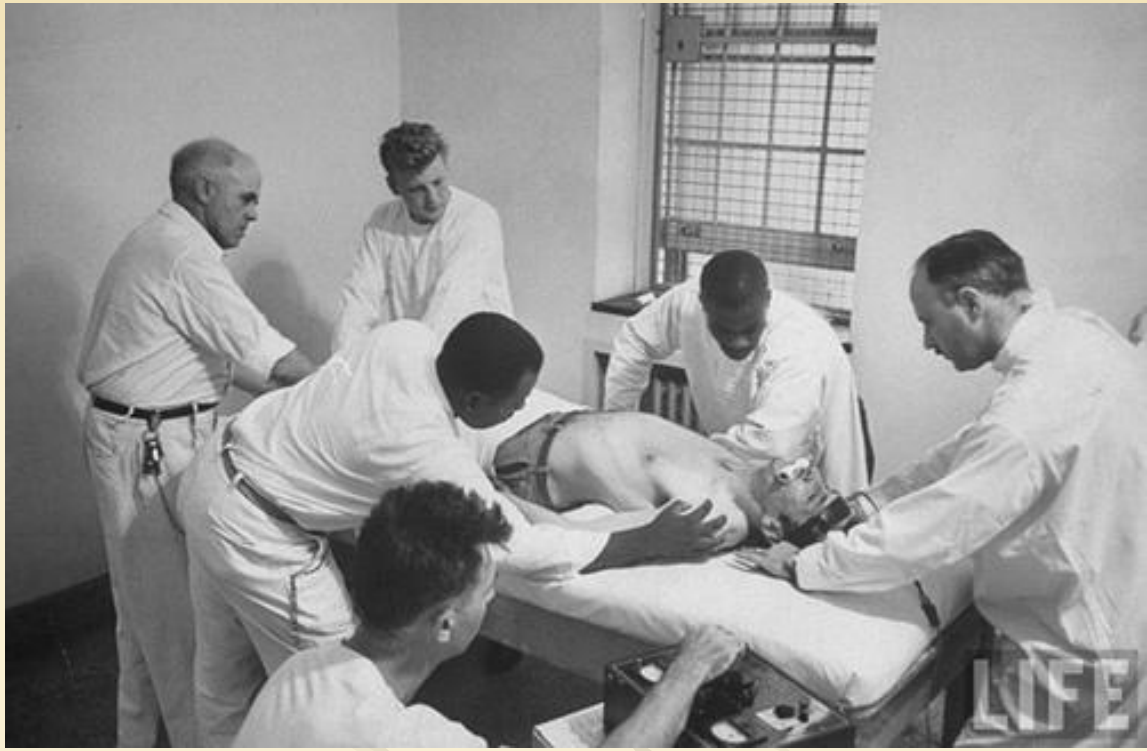
- "Shock" methods

insulin-coma therapy,

electro-convulsive therapy

- **Psychopharmacotherapy -** 1952 - First use of antipsychotic (neuroleptic) (chlorpromazine (chlorpromazine)),
- 1955 - the first use of an antidepressant (imipramine).

Electroshock treatment (EST)



was suggested in 1938 by an Italian psychiatrist U. Cherletti and a neurophysiologist L.Bini. Electrodes are applied to the patient's temples, and electric current with the voltage of 60-120 V runs through them during 0.2-0.4 sec. It develops a seizure similar to a grand mal. The mechanism of the medical effect is not clear.

This method proved to be effective in very severe depressions (when antidepressants fail to help), catatonic stupor and acute hypertoxic (febrile) schizophrenia.

EST is also used as a way to overcome therapeutic resistance to psychoactive drugs in chronic mental disorders.

Insulin coma treatment

Consists in giving the patient on an empty stomach some individually selected dose of insulin which causes hypoglycemic coma (or a subcoma state). This state is interrupted by an intravenous injection of glucose. The method was suggested in 1933 by an Austrian psychiatrist M. Zackel. Insulin shocks are caused every day, during 10-40 days.

The period of hypoglycemia may develop fits of convulsions, a collapse-like state, cardiac arrhythmias. Repeated hypoglycemia are possible, especially at night.

It is most indicated for schizophrenia which began not more than a year ago.

First Generation Antipsychotics (Neuroleptics) – typical neuroleptics

Relieve only positive symptoms

Chlorpromazine (Thorazine)

- phenothiazines
- primarily blocks D_1 & D_2

Haloperidol (Haldol)

- butyrophenones
- primarily blocks D_2

Triftazin

Flupenthixol + depot form

Zuclopenthixol + depot form

First Generation Antipsychotics (Neuroleptics) – typical neuroleptics

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- butyrophenones
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Triftazin

Flupenthixol + depot form

Zuclopenthixol + depot form

Major Side Effects

- Movement Effects (Extrapyramidal)
  - Parkinsonism
  - Akathisia
  - Tardive Dyskinesia
- Agranulocytosis
  - ↓ white blood cells (WBC)
  - Not frequent, but 50% mortality ~

Second Generation Antipsychotics (Atypical Neuroleptics)

Relieve negative & positive symptoms

Lower risk of

- Parkinsonism
- Akathisia
- Tardive Dyskinesia

Atypical Neuroleptics

Clozapine Clozaril

↑ Agranulocytosis

Risperidone Risperdal

↓↓ Agranulocytosis;

Amisulpride (↑ level of prolactine)

Aripiprazole (Abilify)

depression ~

Common antipsychotic medication side effects

Dry mouth

Constipation

Blurred vision

Drowsiness

Serious antipsychotic medication side effects

Restlessness

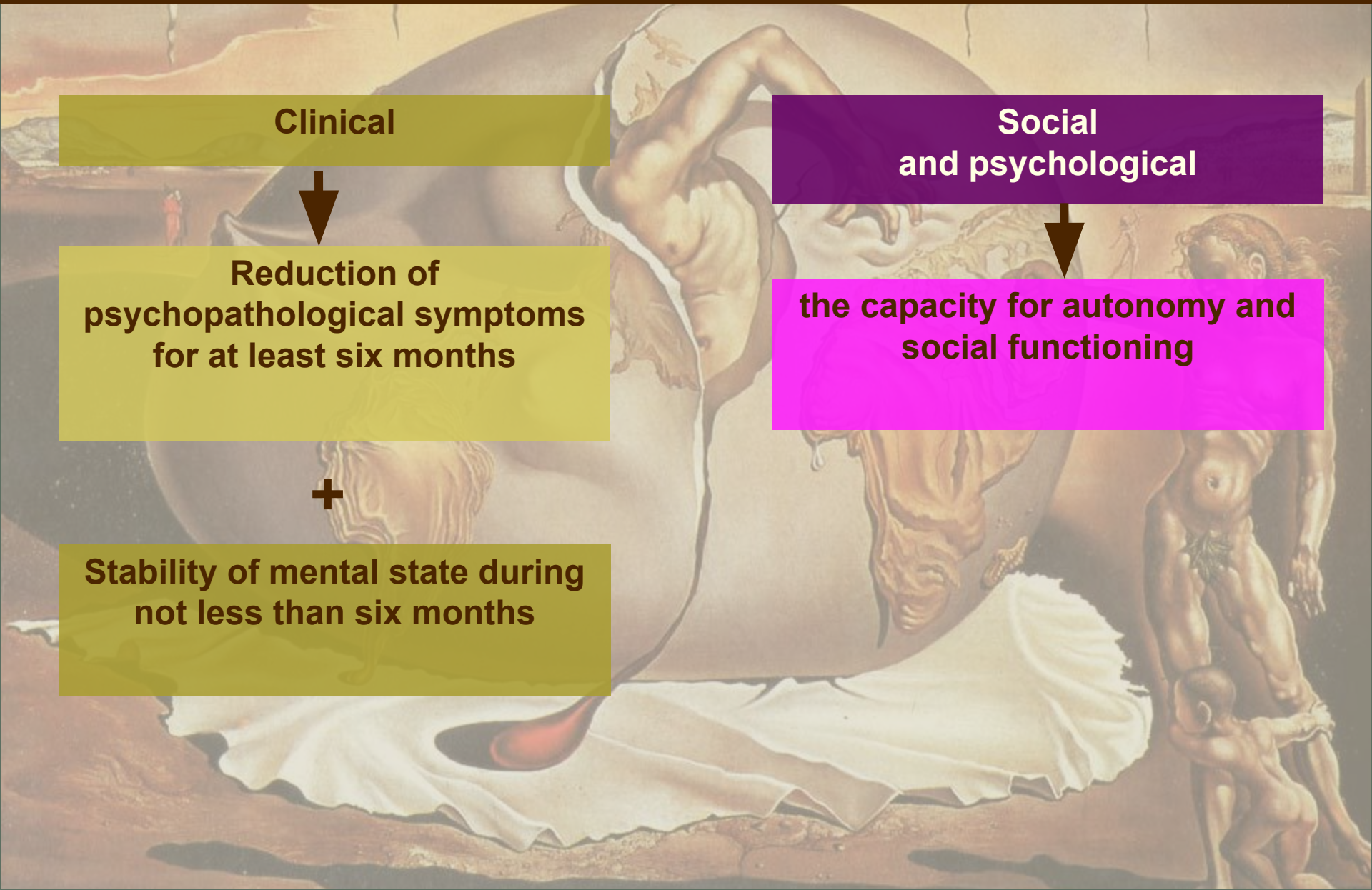
Muscle stiffness

Slurred speech

Extremity tremors

Agranulocytosis

CRITERIA FOR THE QUALITY OF TREATMENT



Clinical

↓

Reduction of psychopathological symptoms for at least six months

+

Stability of mental state during not less than six months

Social and psychological

↓

the capacity for autonomy and social functioning

Treatment of schizophrenia

After treatment of acute schizophrenic psychosis long time maintain therapy:

after 1 episod – 2 years maintain therapy

after 2 episod – 5 years maintain therapy

- after 3 episod – 10 years maintain therapy

Schizophrenia-like psychotic disorder

Acute psychotic disorder in which the psychotic symptoms are relatively stable and meet the criteria of schizophrenia, but manifest during less than one month.

Treatment

During the transient psychotic states small doses of neuroleptics are prescribed (eg, haloperidol 2-5 mg / day), tranquilizers (eg, diazepam 2-10 mg / day).

For depressive states antidepressants are prescribed (eg, amitriptyline).

Social adaptation promotes individual and group psychotherapy.

To fix the acute condition of schizophrenia is used antipsychotic dose of drugs, equivalent to 300 – 800mg of chlorpromazine equivalents (t. E. 300-800 mg of chlorpromazine) per day.

Treatment of primary psychotic episode begins with atypical antipsychotics.

Typical antipsychotics do not remove negative symptoms and , on contrary, can aggravate it.

Atypical antipsychotics adjust negative symptoms.

Induced delusional disorder

A rare delusional disorder, which is shared by two or more people with close emotional contact.

- Only one of the group suffering true psychotic disorder;
- Delirium induced by other members of the group and is usually held in the separation;
- Psychotic disease of the dominant person is often schizophrenic, but not always;
- The original delusions in the dominant person and the induced delusions are usually chronic, and are content delusions of persecution or grandeur;
- Delusional beliefs are transmitted only in special circumstances.

Тристан и Изольда, 1944. Холст, масло.

Delusional disorder

- Every year there from 1 to 3 new cases of delusional disorders per 100 thousand population. This number is about 4% of all primary admissions to psychiatric hospitals among inorganic psychoses.
- The average age of onset of the disease accounts for about 40 years, ranging from 25 to 90 years. The number of women with this type of disorder is slightly bigger than the number of men.

Delusional disorder

Situations that contribute to the development of delusional disorders:

1) subject of exaggerated expectation that he would meet the sadistic treatment;

2) situations which give rise to mistrust and suspicion;

3) social isolation;

4) a situation in which a growing sense of envy and jealousy;

5) a situation in which there is a decrease the level of self-esteem;

6) the situation that cause the subject to see their own shortcomings in others;

7) the situations in which enhanced the likelihood that the subject would be too much to reflect on the possible value of the events and motivations.

Classification of delirium

Primary (Interpretative, primordial, verbal)

The primary lesion in thinking - amazed rational, logical knowledge, distorted judgment, consistently supported by subjective evidence, having its own system. At the same time perception of the patient is not broken.

Secondary (sensual and imaginative)

Violation of thinking comes secondly after a interpretation of the delusional hallucinations, lack of reasoning, which are carried out in the form of insights that are vivid and emotionally rich.

Delusional syndrome:

- Paranoiac syndrome - a systematic interpretative delirium. Most monothematic. There has been no intellectual-mental easing.
- Paranoid syndrome - unsystematic, typically in conjunction with hallucinations and other disorders.
- Paraphrenic syndrome - a systematic, fantastic, coupled with hallucinations and psychic automatism.

Stages of development of delirium

1. Delusional mood - the belief that there were some changes somewhere (but is not yet known exactly where);
2. Delusional perception - in view of the growing anxiety appears delusional explanation of the meaning of individual phenomena;
3. Delusional interpretation - delusional explanation of all perceived phenomena;
4. Crystallization of delirium - the formation of finished delusions;
5. Attenuation of delirium - the emergence of criticism to the delusions;
6. Residual delusions are observed in hallucinatory-paranoid states, after the delirium and after the epileptic twilight state.

Paraphrenia

Involutionary paraphrenia - represents delusional psychosis of elderly people, it is manifested by delusions of persecution and the impact (often with erotic content), mood swings, confabulations, and speech disorders.

Greek.

Phren – mind, intelligence

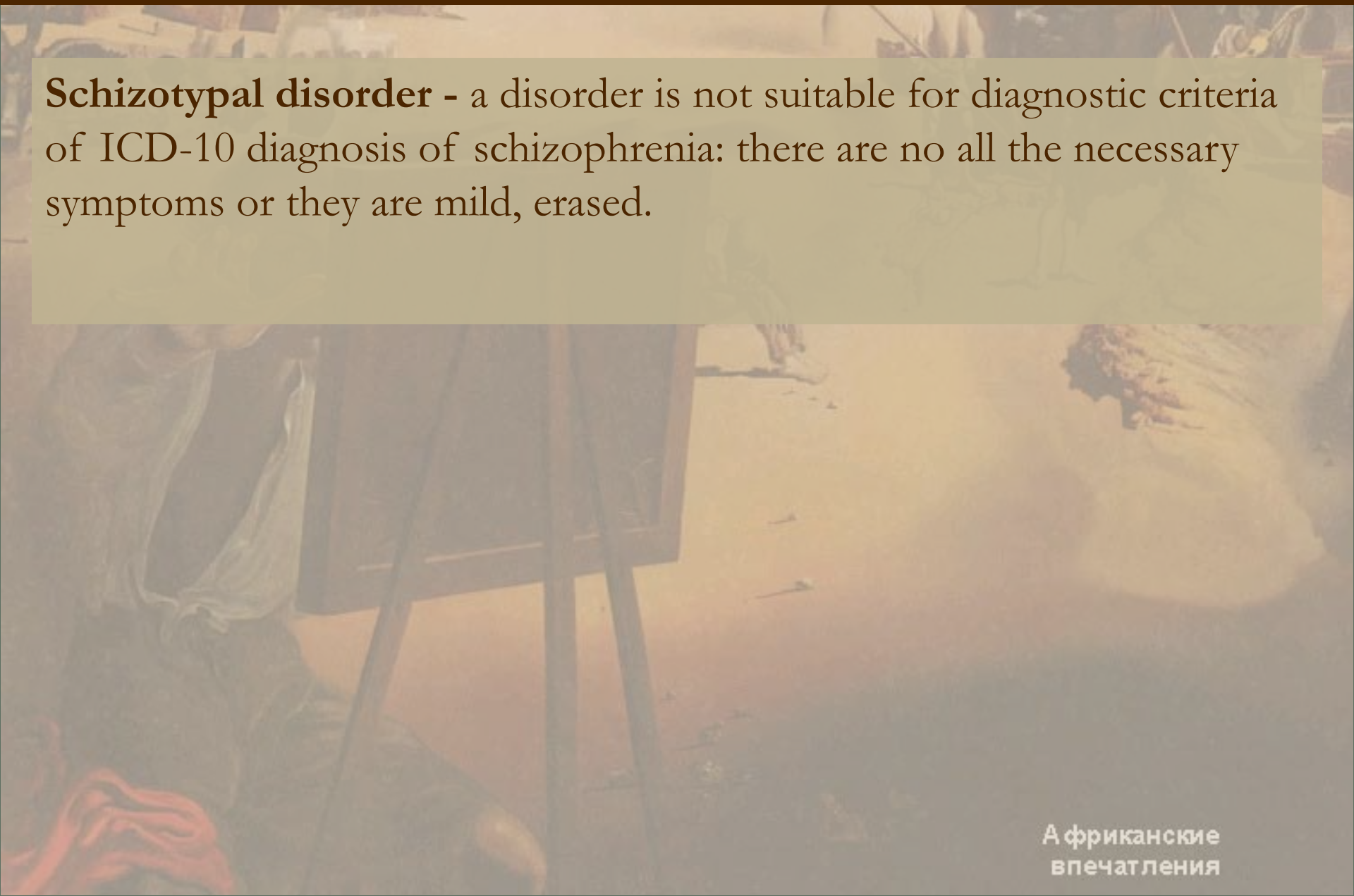
The course and prognosis

The diagnosis of schizophenia can never be withdrawn, but a long-term compensation is possible.

- Under the influence of stress may arise decompensation
- In 30% of cases, the disease progresses slowly, and after many years, gradually reaches similarity with paranoid schizophrenia
- 10% of patients commit suicide attempts

Schizotypal disorder

Schizotypal disorder - a disorder is not suitable for diagnostic criteria of ICD-10 diagnosis of schizophrenia: there are no all the necessary symptoms or they are mild, erased.

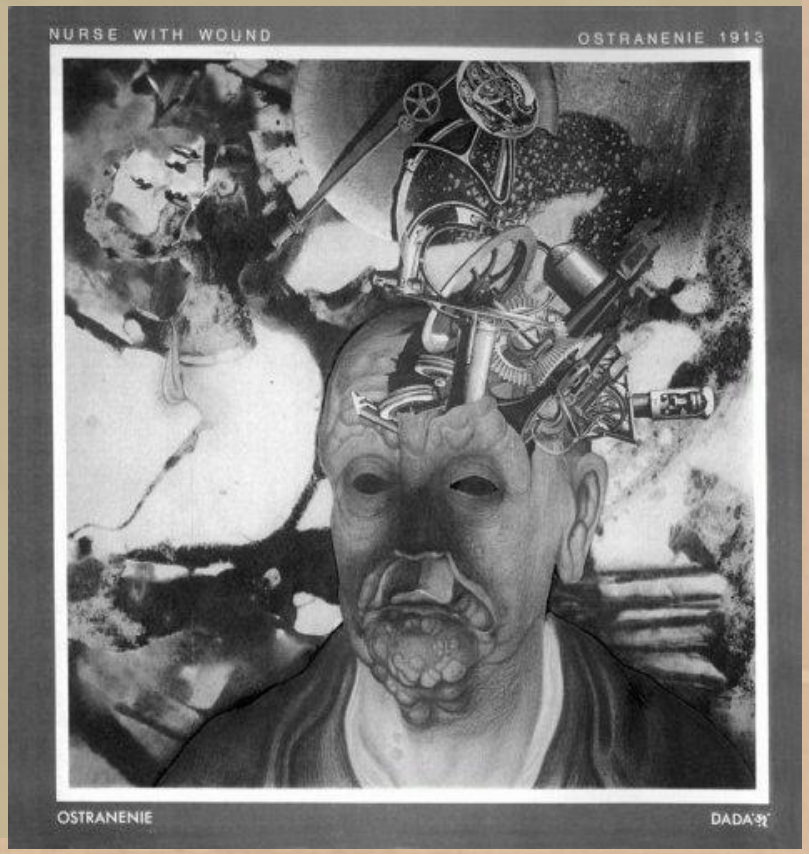


Schizotypal disorder

- In ukrainian psychiatry resemble the indolent (slow-) schizophrenia.
- Diagnosis is complicated.
- It is characterized by slow, long, mostly continuous flow.
- There are two basic forms:

  - ***Pseudoneurotic***

    - ***Pseudo psychopathic***



The criteria according to ICD-10

A. For at least **two years** continuously or periodically be detected at least **four** of the following signs:
1) inappropriate or constricted affect, the patient looks cold and aloof;
2) strangeness, eccentricity, especially in behavior or appearance;
3) depletion of contacts and tendency to social autization;
4) strange looks (beliefs) or magical thinking, influencing behavior and inconsistent with the subcultural norms;
5) suspiciousness or paranoid ideas;
6) Obsessive ideas without inner resistance, often with dysmorphiaphobic, sexual or violent content;
7) unusual perceptual phenomena, including somatic-sensory (bodily) or other illusions, depersonalization and derealization;
8) amorphous, circumstantial, metaphorical, hyperdetailed and often stereotyped thinking, manifested by odd speech or in other ways without the expressed dissociation;
9) occasional transient quasi-psychotic episodes with intense illusions, auditory or other hallucinations and delusional ideas, usually occurring without external provocation.
B. The case should never meet the criteria for any disorder in schizophrenia F20- (schizophrenia).

Creation of patients with schizophrenia

Louis Wayne (1860-1939)

Creation of patients with schizophrenia

Mark Gudvolt
(1980)

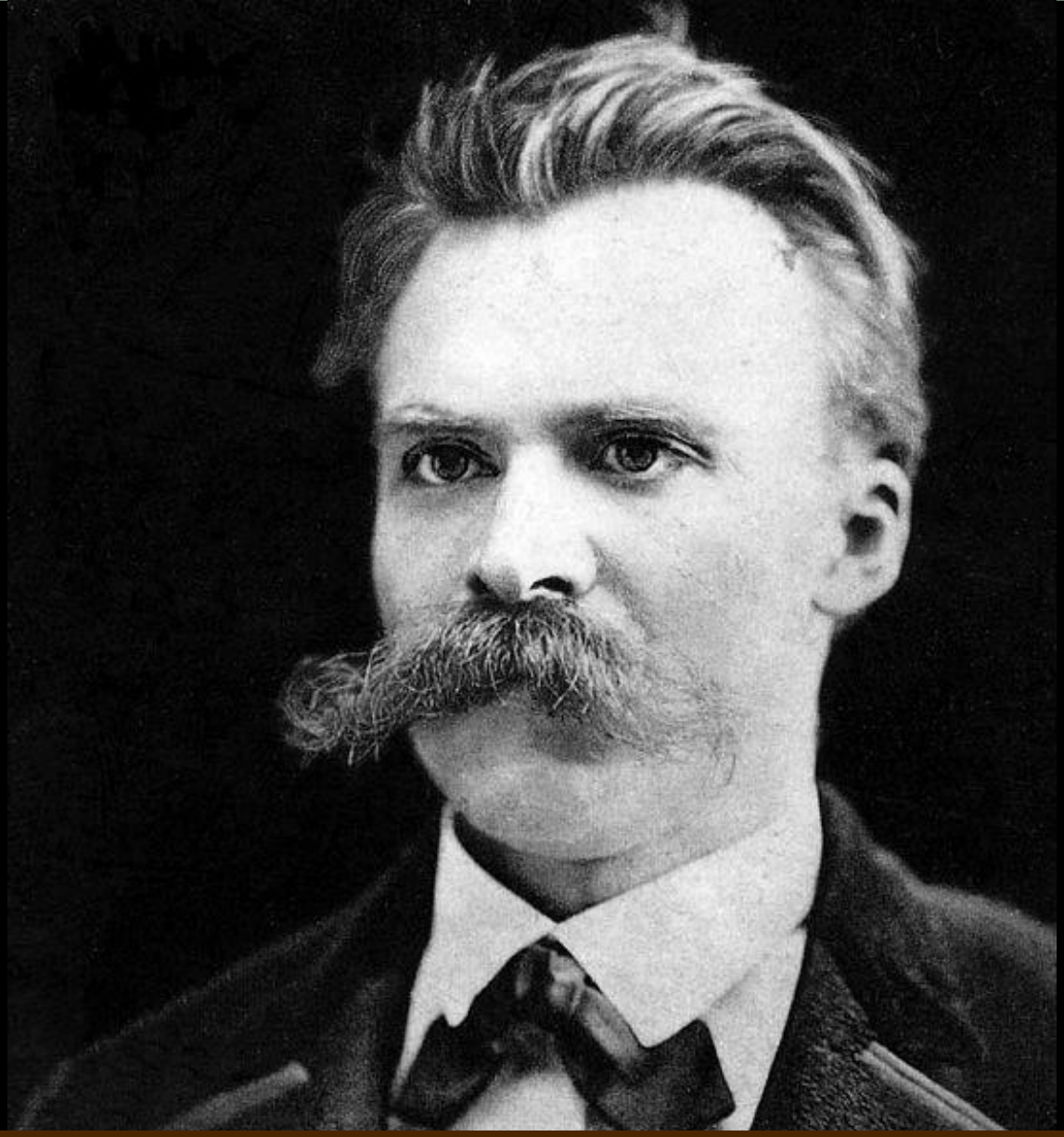
Arts of patients with schizophrenia

Mark Gudvolt
(1980)

Salvador Felip Jacint Dalí Domenech Domenech and the Marquis de Pubol
(1904 - 1989)
Spanish surrealist painter, graphic artist, sculptor, director, writer

Salvador Dali. Untitled. Dovetail and cello (a series of accidents), 1983
Last picture painted by the artist.

Francisco Jose de Goya
(1746 - 1828)
Self Portrait. Court painter of King of Spain, vice-director of the Royal Academy of Fine Arts of San Fernando

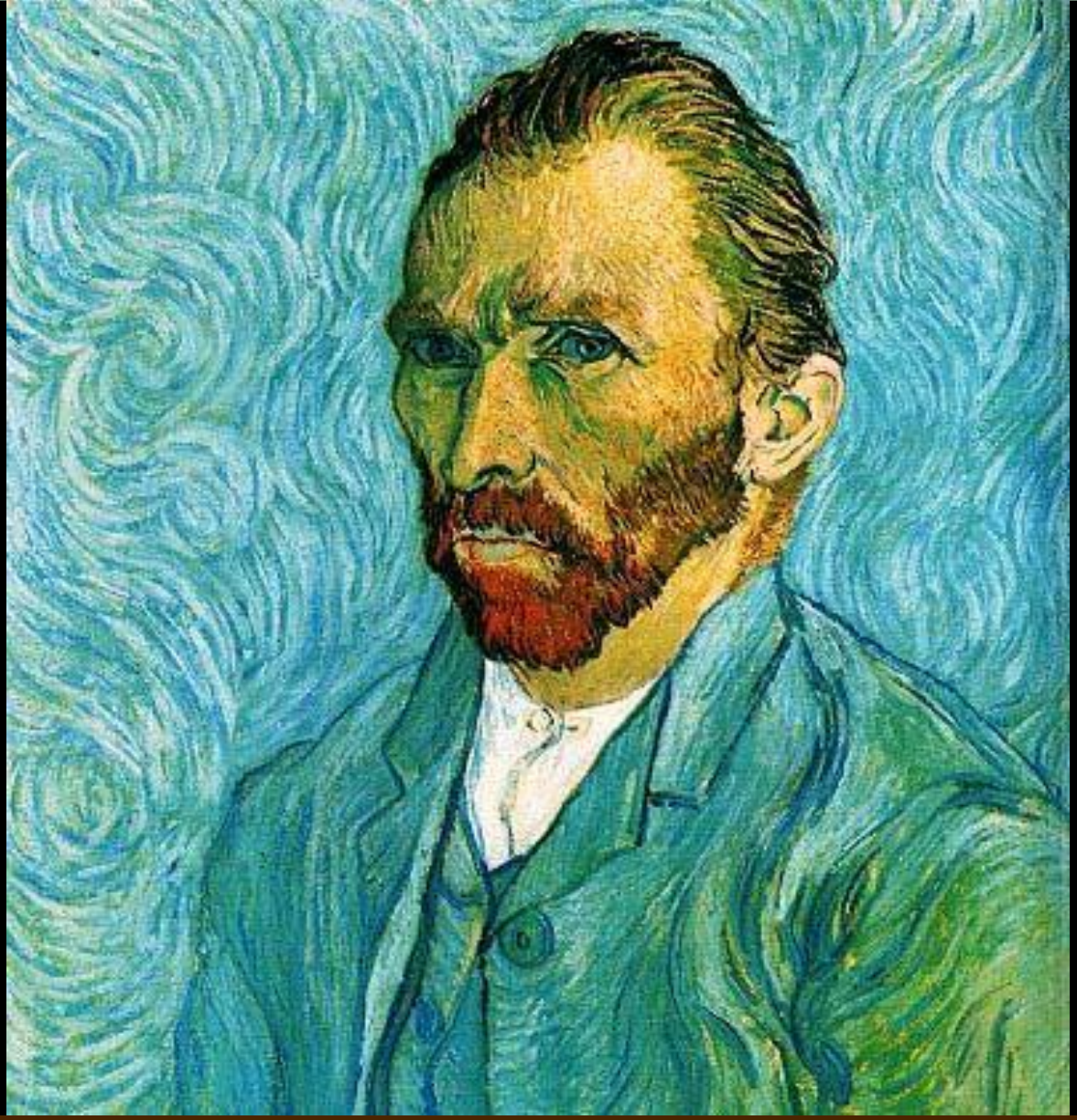


Friedrich Wilhelm Nietzsche
(1844 - 1900)
German philosopher

John Forbes Nash Jr
(1928 -)
American mathematician, Nobel Laureate in Economics 1994

Mikhail Vrubel
(1856 - 1910)
Self Portrait. Russian modernist painter

Franz Kafka
(1883 - 1924)
Austrian writer



Vincent Van Gogh
(1853 - 1890)
Self Portrait. Dutch postimpressionist painter

Emanuel Swedenborg
(1688 - 1772)
The Swedish natural scientist, theosophist, inventor.
In 2004, the collection of manuscripts of the scientist was included in the Memory of the World Register

Ludwig II
(1845 - 1886)
The King of Bavaria

Victor Kandinsky
(1849 - 1889)
The Russian psychiatrist and author of "On pseudohallucinations"

THANK YOU FOR YOUR ATTENTION!