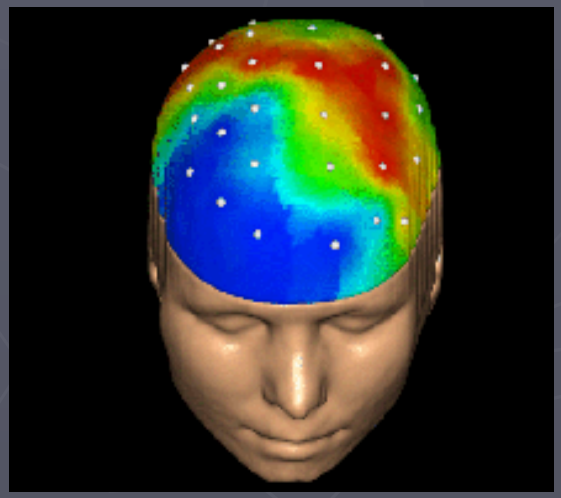
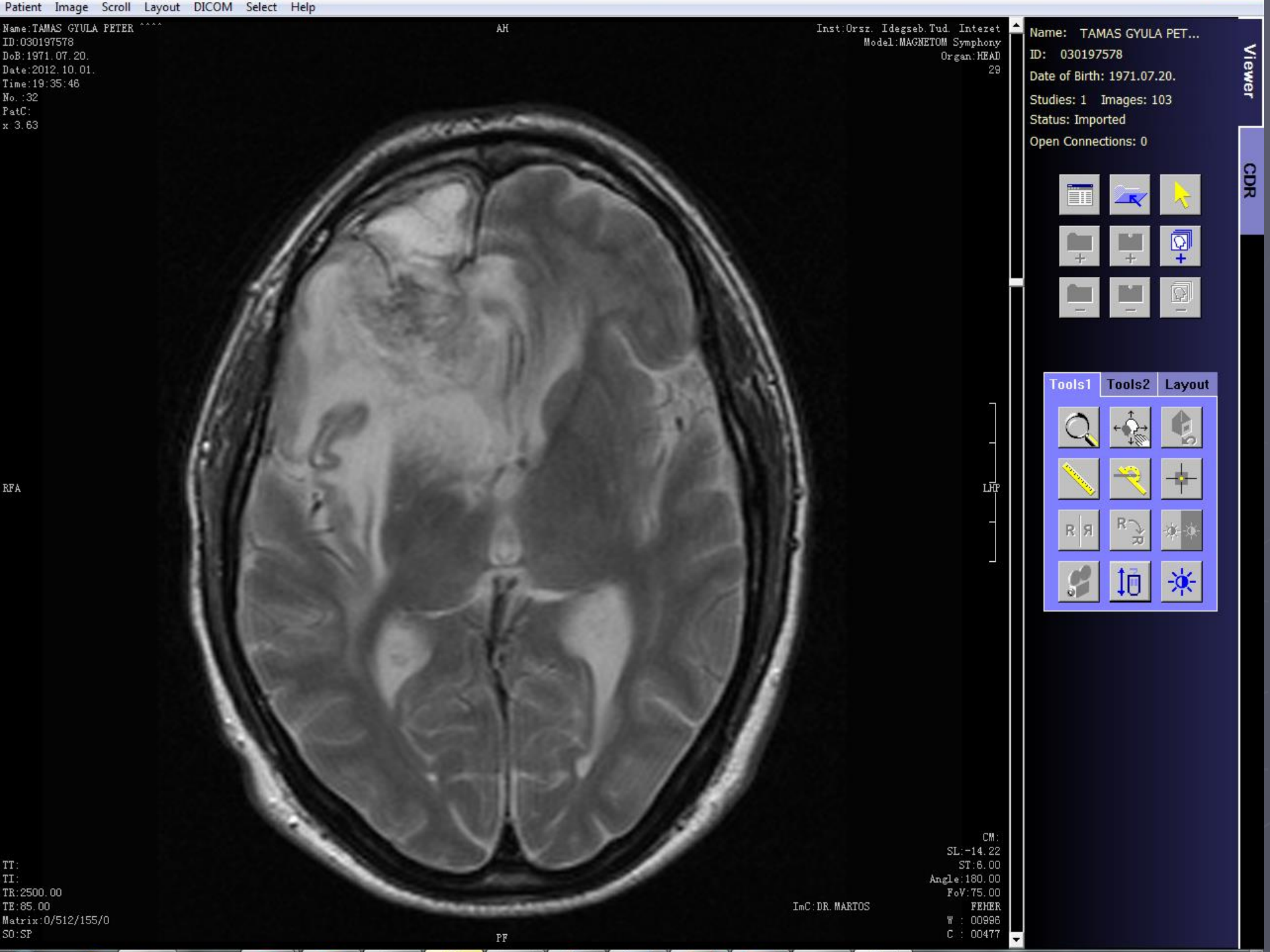
Organic mental disorders

Zoltán Hidasi

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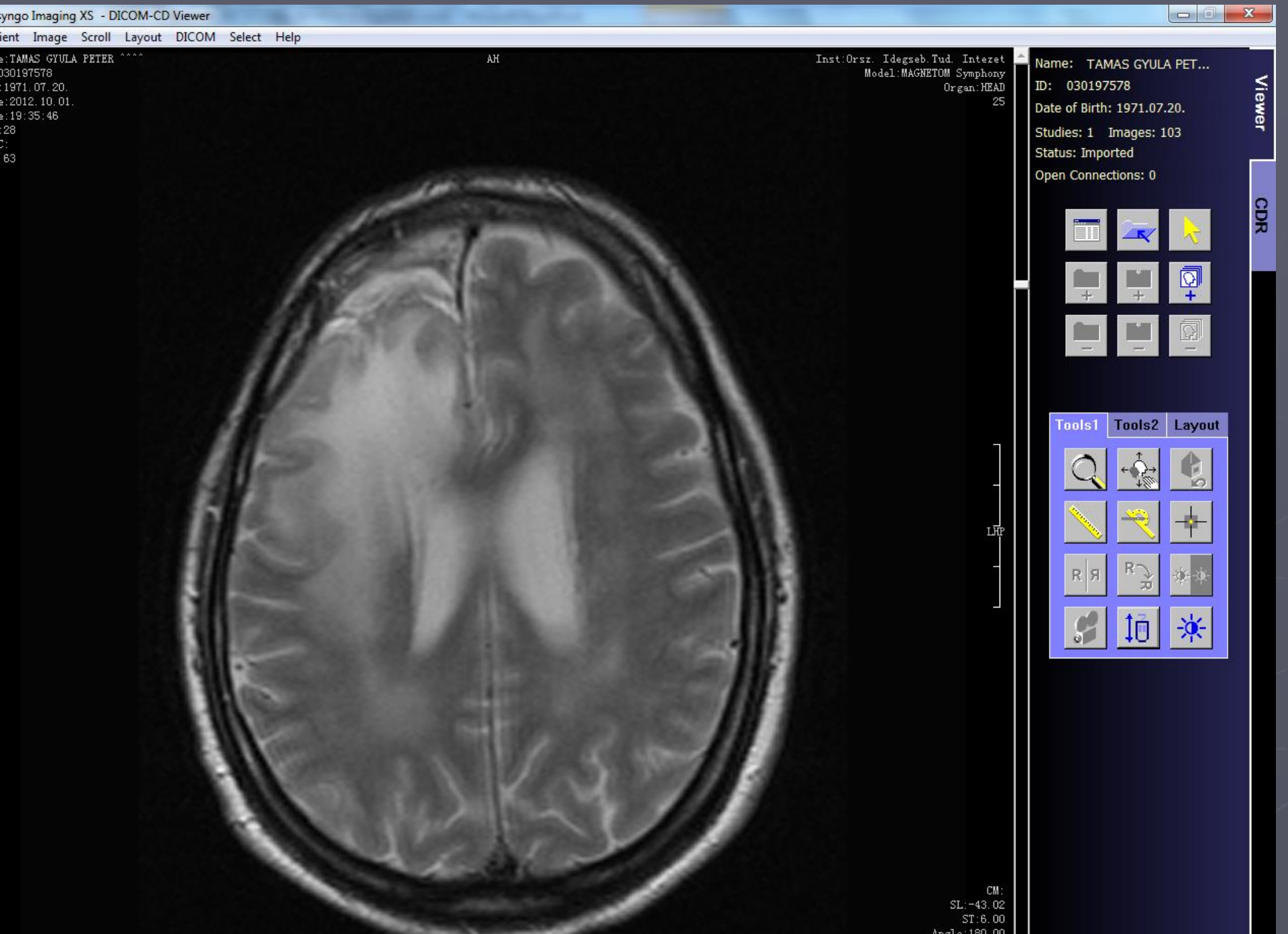
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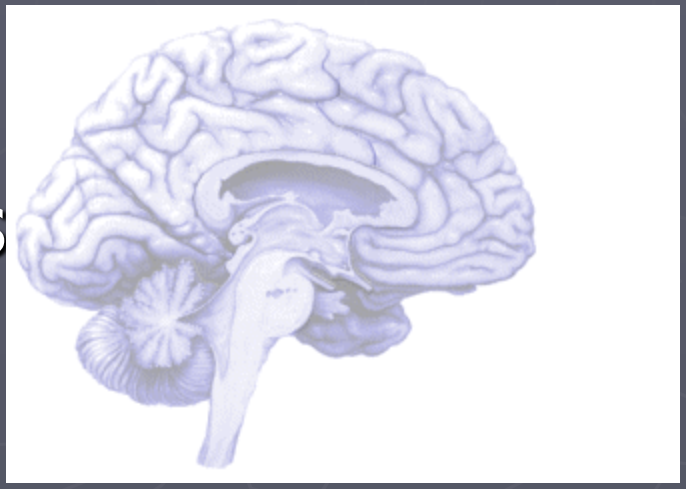
What is organic?

- Neurology
- Psychiatry
- Organic psychosyndromes



- Organic (mental) disorders
- Functional disorders

Neuropsychiatry

- Biological psychiatry
- Cognitive neuroscience
- Neuropsychology
- (Neurology – Psychiatry)

- Neuropsychiatry
- Clinical neuroscience

DSM

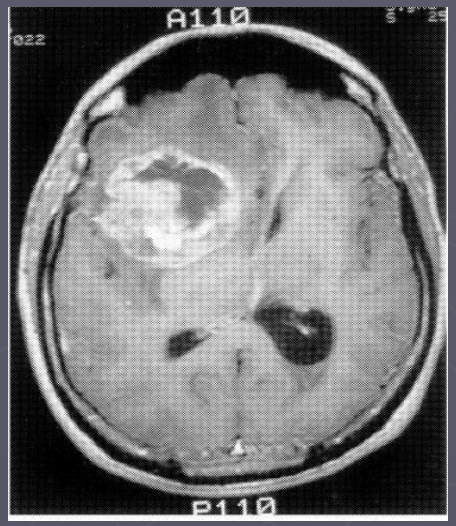
- DSM – IV. Delirium, dementia, amnestic disorders and other cognitive disorders.
- DSM-5: Delirium, Major/mild neurocognitive disorder
- Mental disorders due to a medical condition

ICD 10

- Organic and symptomatic mental disorders
  - Dementia
  - Organic amnestic syndrome
  - Delirium
  - Other mental disorders caused by brain lesion and dysfunction or somatic disorder
    - Organic hallucinosis, organic catatonia, organic delusional disorder, organic mood disorder, organic anxiety disorder, etc.
- Mental and behavioural disorders caused by psychoactive substances

Etiology, causes, pathology

- Central nervous system
  - Neurodegeneration
  - Cerebrovascular origin
  - Inflammation, tumor
  - Demyelination
  - Epilepsy
  - Trauma
  - Other
- Outside the central nervous system
  - Endocrine
  - Metabolic, cardio-vascular diseases
  - Nutritional disturbance
  - Infection
- Drug intoxication, drug withdrawal
  - Alcohol, illegal drugs, medication

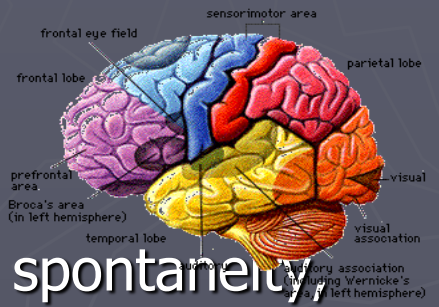


From neurological point of view…

- Cerebrovascular diseases
- Neurodegenerativ diseases
- Parkinson's disease, other movement dis.
- Epilepsy
- Head trauma –brain injuries
- Tumors
- Neuroinfections
- Neuroimmunology (multiple sclerosis)

Classification of syndromatology

- Acute – chronic
- Diffuse (global) – focal (local) - multifocal brain disfunction
- Lobe syndromes
  - FRONTAL
    apathy, disinhibition, lack of iniciative and spontaneity, motivation, perseveration, impulsivity
  - TEMPORAL
    affective, agression, fear, explosion, psychosis, disorientation
  - PARIETAL
    gnostic and cognitive dysfunctions (alexia, acalculia, agraphia), apraxias



Delirium - Syndromatology

- Acute course – (sudden onset, short episode)
- Impairment of consciousness
- Global impairment of cognitive functions (memory, attention, orientation, thinking, etc.)
- Perceptual disturbance (multimodal illusions and hallucinations)
- Behavioural changes (agitation)
- Fluctuating course

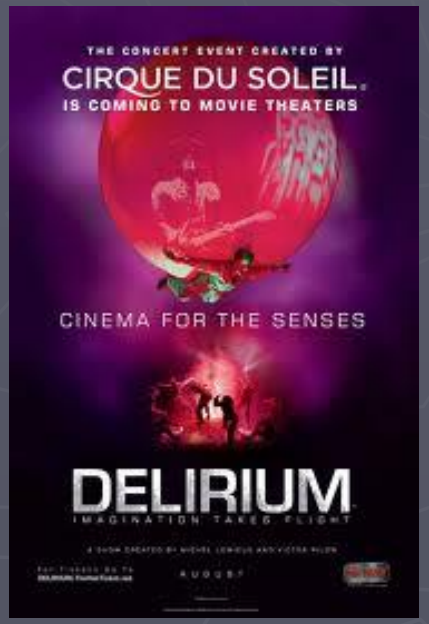
Delirium - Etiology

- Any cause, resulting in global dysfunction
- General medical condition (e.g. infection, metabolic reasons, hypoxia)
- Substance induced
- Multiple cause

- Therapy: Causal, symptomatological (BZD, NL)

Etiology

- Etiological factors?
- Risk (predisposing) factors
- Trigger (precipitating) factors



- Hyperactive, hypoactive, mixed form

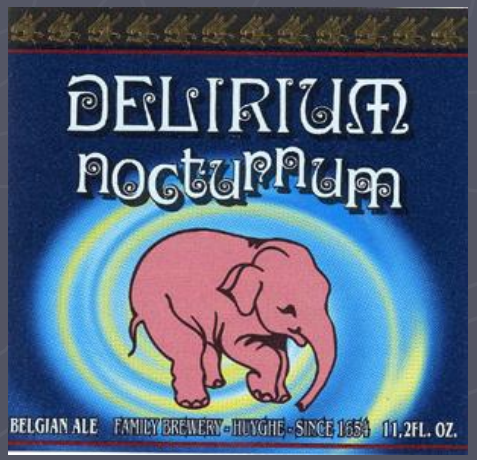
Risk factors 1.

- Age: 65+ sex: male
- Dementia (+++), other cognitive disorder
- Depression
- Vision-, hearing impairment
- Dehydration, malnutrition
- Medication (multiple drugs, psychoactive drugs), alcohol
- Immobility, pain, constipation
- Sleep deprivation

Saxena et al, 2009.

Risk factors 2.

- Somatic illnesses
  - Severe illness
  - Many illnesses
  - Chronic liver or kidney failure
  - Stroke, other neurological disorder
  - Metabolic disorder
  - Trauma, bone fracture
  - Terminal state
  - HIV infection



Saxena et al, 2009.

Precipitating 1.

- Comorbid disorders
  - Infection
  - Hypoxia
  - Severe acute disorder (pl. AMI)
  - Liver, kidney disorder
  - Urinary retention, constipation
  - Anaemia
  - Fever
  - Shock

Saxena et al, 2009.

Precipitating factors 2.

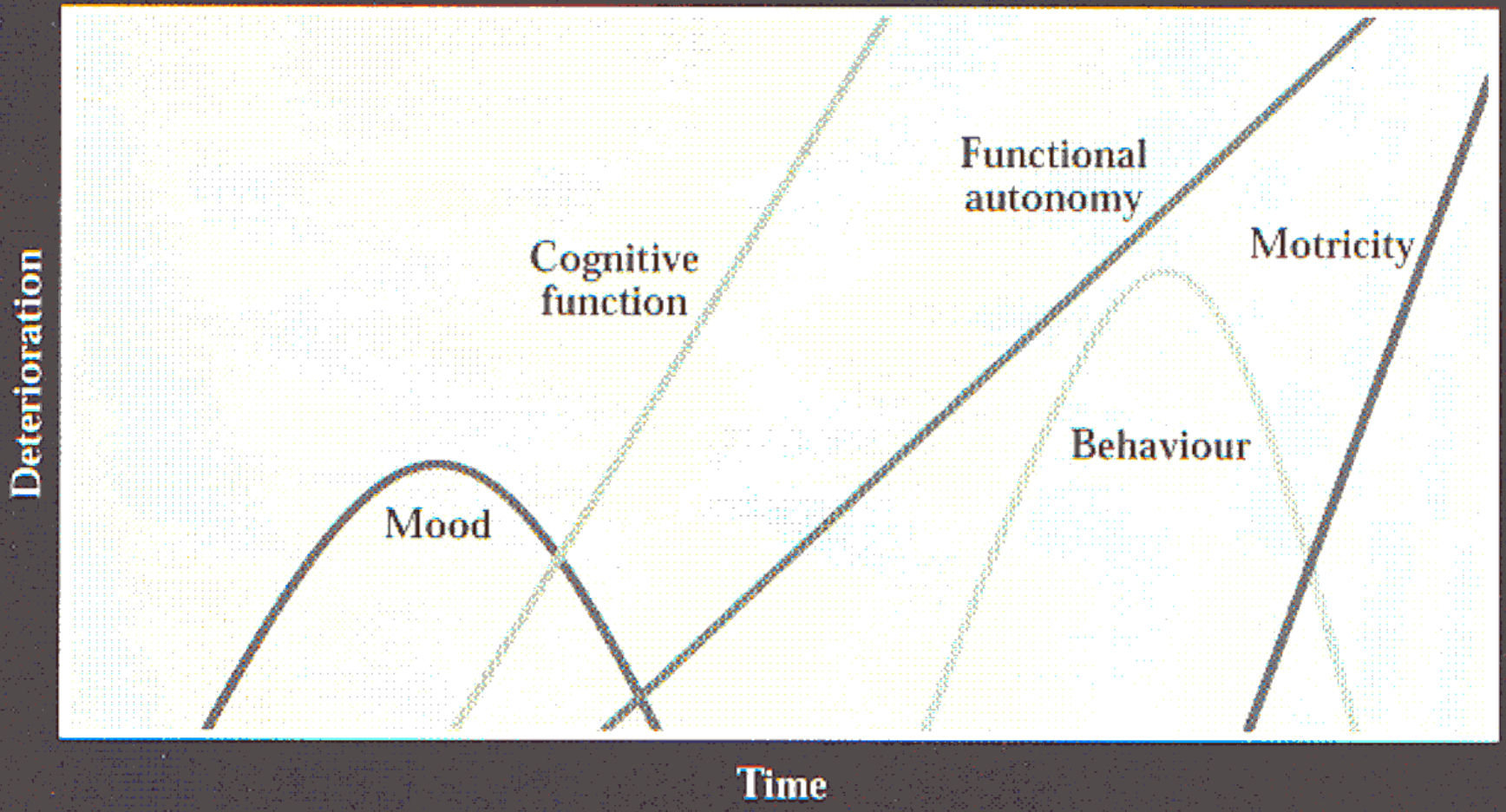
- Iatrogenic complication
- Metabolic imbalance
- Neurological disease (head trauma)
- Surgery
- Medication
  - overdose, politherapy
  - sedatives, hypnotics, anticholinergic drugs, antiepileptics
- Enviromental factors (ICU, phycical restraint, bladder catheters, multiple/invasive manipulations, emotional stress)
- Pain

Saxena et al, 2009.

Dementia - Syndromatology

- Chronic course (10% above 65 y, 16-25% above 85 y)
- Multiple cognitive deficits incl. memory impairment (intelligence, learning, language, orientation, perception, attention, judgement, problem solving, social functioning)
- No impairment of consciousness
- Behavioural and psychological symptoms of dementia (BPSD)
- Progressive - static
- Reversible (15%) - irreversible

Symptomatic domains of typical AD over time



Gauthier et al (1996); Kertesz and Mohs (1996); Gélinas and Auer (1996); Eastwood and Reisberg (1996); Barclay et al (1985)

Cognitive/non-cognitive

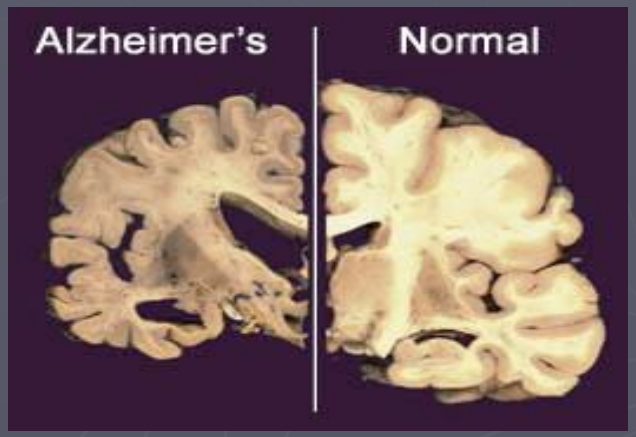
- Non-cognitive symptoms
- Behavioural symptoms
- Psychological and behavioural symptoms in dementia (BPSD)
  - delusion, hallucination, depression, anxiety, agitation/agression, euphoria/mania, disinhibition, irritability, apathy, motor behaviour

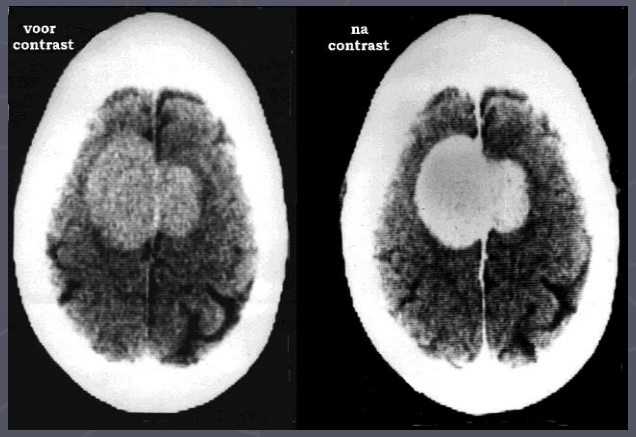
Dementia - Classification

- Severity
  - Mild cognitive impairment (MCI)
  - Mild dementia
  - Moderate dementia
  - Severe dementia
- Localization
  - Cortical
  - Subcortical
- Etiology
  - Primary
  - Secondary

Dementia -Etiology

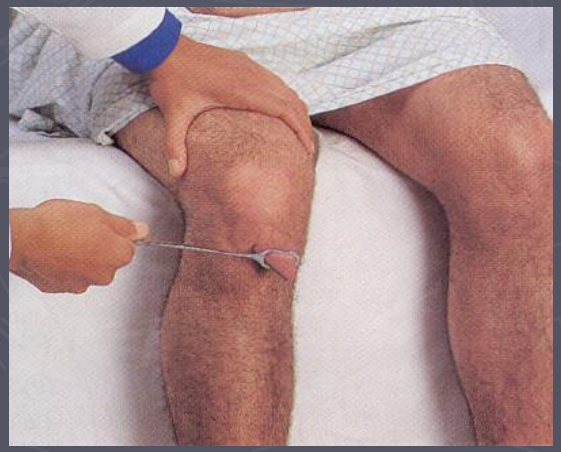
- Alzheimers disease (60-70%)
- Vascular dementia (10-20%)
- Neurodegenerative disorders
  (FTD, Lewy body dis, Parkinson, Huntington, etc.)
- Drugs and toxins
- Intracranial masses
- Anoxia
- Trauma
- Infections (JCD, HIV, etc)
- Nutrition
- Metabolic
- Pseudodementia

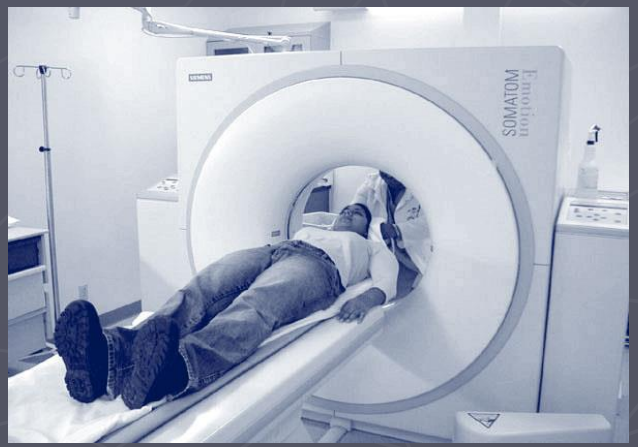




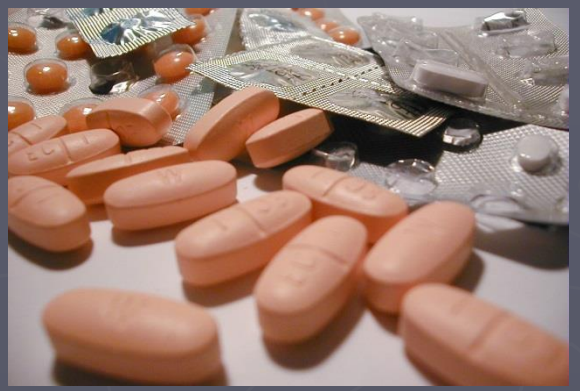
Dementia - Diagnosis

- Signs and symptoms
- Laboratory data
- EEG, CT, MRI
- Psychological testing (MMS)





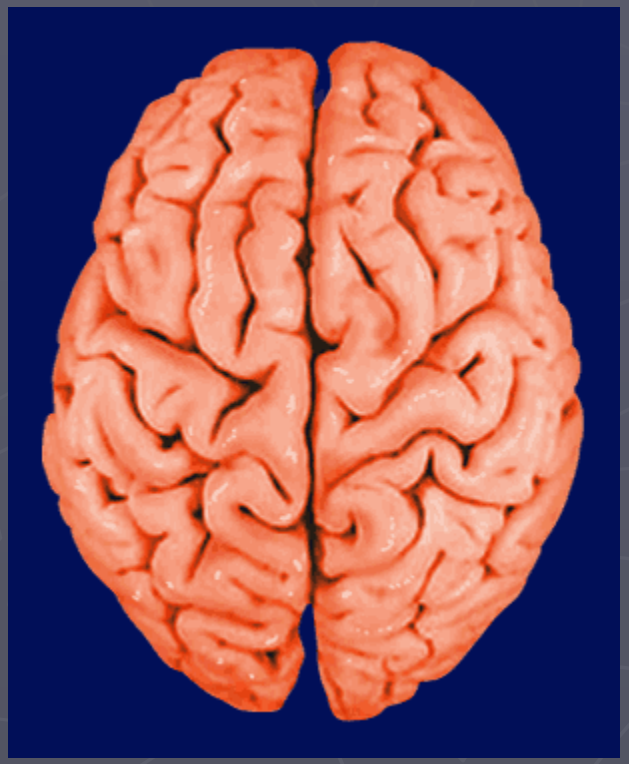
Dementia - Therapy



- Causal if possible
- Nootropics
- Neuroprotection
- AChEI (rivastigmine, donepezil, galantamin)
- Glutamate antagonists (Memantine)
- BPSD (anxiolitics, antidepressant, antipsychotics, etc.)
- Non-pharmacological interventions

Mental disorders due to a General Medical Condition (DSM)

- Psychotic disorder due to a general medical condition
- Mood disorder
- Anxiety disorder
- Sexual disfunction
- Sleep disorder
- Catatonic disorder
- Personality change



Therapy in neuropsychiatry

- Pharmacotherapy
- Psychotherapy, psycho-social treatment
  - Improving cognitive abilities
  - Rehabilitation
  - Treating affective and anxiety symptoms
  - Treating other psychological symptoms

Pharmacotherapy in neuropsychiatry 1.

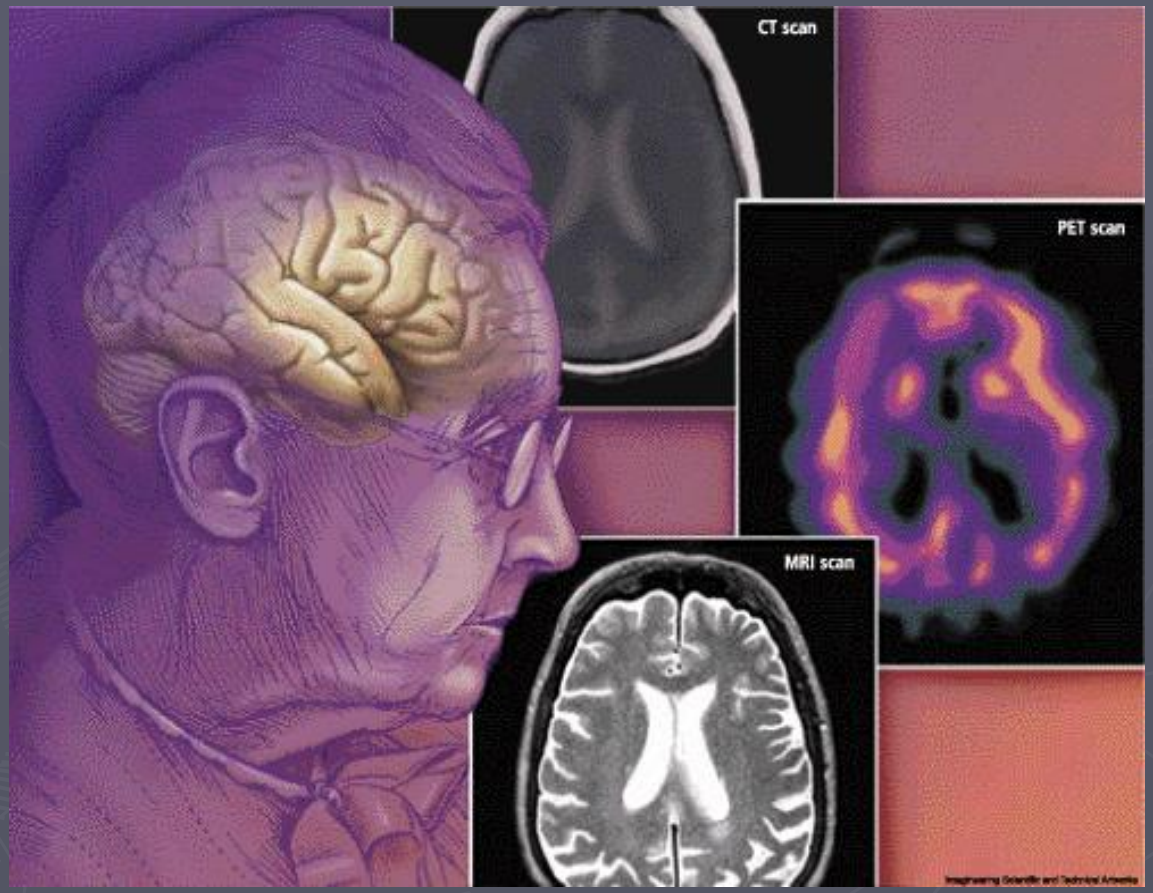
- Targets of pharmacotherapy
  - Etiological background
  - Progression
  - Psychiatric symptoms
    - Target symptom:
      - Cognitive
      - Agitation/aggression
      - Mood
      - Psychotic
      - Other behavioural
  - Neurologic symptoms

Pharmacotherapy in neuropsychiatry 2.

- Aspects of pharmacotherapy
  - Mental status
  - Neurological status
  - Social status
  - Etiological background
- Typical v. atypical symptoms

Pharmacotherapy in neuropsychiatry 3.

- Special aspects
  - Age
  - Polimorbidity
  - Pharmacokinetics (interactions)
  - Optimal dosing (+/-)
  - Side effects (cognitive, other)


CT scan
PET scan
MRI scan