

## Clinical - classification of patients with TBE

### mild

- o meningitis
- o minimal disturbance of consciousness
- o mild focal neurological deficits

### moderate

- o marked neurological deficits (  $\geq$  one week)
- o activities of daily living impaired
- o convulsions
- o decreased level of consciousness

### severe

- o coma
- o respiratory failure
- o severe paralysis (more than one week)

## TBE: Short - Term Prognosis

acute mortality

## Long - Term Prognosis

memory disturbances

long - lasting neuropsychological residua

dysnomia

impaired new learning

(verbal, visual material)

residual focal neurologic deficits

„postencephalitic syndrome“

(headache, behavioural alterations)

## Localisation and clinical symptoms of TBE (= polioencephalitis):

diencephalon	→	sleep - disturbances
brain stem	→	cranial nerve paralysis
cerebellum	→	incoordination, ataxia
spinal motor neurone	→	paresis of extremities
cortex	→	memory, speech

## TBE - SEQUELAE - neurological and neuropsychiatric syndromes

- o nervousness, irritability, emotional disability, fatigue, headache
- o memory disturbances
- o hearing disturbances
- o ataxia, incoordination
- o paresis, tetraparesis
- o respiratory failure, dysphagia, dysarthria
- o death

## Neuropsychiatric complaints after TBE

- o loss of energy, not able to work (94%)
- o emotional disability sleep disturbances (32%)
- o existential fear

## Case report: severe course of TBE and rehabilitation, 64 y, female

- o 64 y, female;
- o 3 days fever and abdominal pain; admitted at the surgery department
- o since 4 years therapy with cortisone; hypertension;
- o Confusion, meningeal signs and the history of a tick bite three weeks ago, lumbar puncture: 379/3, one week later 275/3, ten days later 129/3; elevated CSF protein, increasing over time.
- o TBE virus-specific IgM-antibodies confirmed the diagnosis (serum)

## Case report: severe course of TBE and rehabilitation, 64 y, female

- o **Symptoms:** confusion continued, complex partial seizures; impaired consciousness, ataxia, dysarthria and dysphagia and stridor; peripheral paresis both arms with atrophy
- o **EEG:** diffuse Theta/Delta slowing and focal sharp/ rhythmic waves
- o **MRI:** initial unspecific; 14 days later T2W lesions were found in the basal ganglia and brainstem

## Case report: severe course of TBE and rehabilitation, 64 y, female

- o **hospital stay:** 13 weeks
- o patient began to walk on crutches;  
mild depression and impaired concentration
- o tracheostoma
- o Barthel: 85 points

- o **she continued neurological rehabilitation** for 5 weeks
- o left hemiparesis and proximal muscle weakness of both arms
- o training on ADL
- o training on cognitive functions
- o at discharge walking without any help; Barthel: 100

## Case report: severe course of TBE and rehabilitation, 64 y, female

- o **therapy:** IMCU of the neurological department; carbamazepin 600 mg/d;
- o vocal cord paresis both side lead to **tracheostoma** – 2 months later failed closure; because of stridor and aspiration recanulation was required lasting up to 6 months !
- o **course:** after 10 d responsive but not orientated; left sided central hemiparesis; flaccid paresis of both arms; stridor

## Conclusion of the case report, 64 y, female

- o TBE can lead to CNS and PNS damage
- o no specific treatment
- o need of long term neurological rehabilitation with an individualized rehabilitation plan
- o older people have more severe courses (multimorbidity)