UNIVERSITÀ
DEGLI STUDI DI MILANO-BICOCCA

COURSE SYLLABUS

Neurology

2526-5-H4101D329-H4101D215M

Aims

Teaching Unit of "Neurology" within the Integrated Course of "Nervous System Disorders"

To recognize signs and symptoms of neurological disorders through deep knowledge of physiopathology and semeiology of the correspondent nervous system dysfunction.
To learn the nosology and clinical expression of these specific neurological diseases .
To learn the principles of the correct management of these specific neurological disorders.
Attention will be paid to gender differences.

Contents

Semeiology and nosology of neurological disorders treated within this module

Detailed program

NEUROLOGICAL SEMEIOLOGY
· Exam of sensory system
Sensitive syndromes due to:

- lesions of nerves
- lesions of roorts
- lesions of spinal cord
- cortical lesions

· Semeiology of motility
Paresis and paralysis due to:

- upper motor neuron lesions
- lower motor neuron lesions
- differential diagnosis of different types of paralysis
- Akynesia and involontary movements (extrapiramidal disorders)
  · Exam of coordination, stance and gait
- Cerebellar symptoms and ataxia

· Optic nerve and pathways
· Alterations of ocular movements

· Semeiology of symbolic defects
Aphasia
Apraxia
Agnosia

ANAMNESIS
· Define the onset, progression, characteristics of disorder, identifying related symptoms and exacerbating conditions

NEUROLOGICAL EXAM
· Examination of mental functions, including consciousness, language and memory
· Examination of the cranial nerves
· Examination of motor functions: tests of strength, tone, trophism, involuntary movements, reflexes deep and superficial
· Coordination examination
· Examination of primary sensory functions (pain, temperature, position, pallesthesia) secondary (stereognosia, graphesthesia, discrimination)
· Examination of standing and walking
· Examination of the meningism and listening to carotid murmurs.

LOCATION AND DIFFERENTIAL DIAGNOSIS OF THE MAIN DISEASES
· Distinguish focal, multifocal and diffuse processes
· Determine whether the history and examination indicate a neurologic disorder
· Differentiate aphasia, dysarthria, confusion, amnesia and hemi-inattention
· Recognize and describe brainstem lesion disorders
· Distinguish gaze disorders from cortical or brainstem lesions
· Localize the lesion site of visual field disorders
· Distinguish central and peripheral facial paralysis
· Distinguish central and peripheral paralysis
· Discuss the meaning of a sensory level and sensory dissociations
· Distinguish disorders from hemispheric and vermian cerebellar lesions
· Distinguish the lesions of the root - plexus - nervous trunk - neuromuscular junction - muscle

DIAGNOSIS AND THERAPY OF COMMON NEUROLOGICAL CONDITIONS
Etiopathogenesis, neuropathology, clinical picture, fundamental diagnostic procedure, clinical pharmacology and therapeutic potential of surgery for:
· Cerebrovascular diseases

- Atherothrombotic and embolic infarction
- Transient ischemic attacks
- Lacunar state
  · Medullary vascular diseases
  · Headaches
  · Encephalitis and meningitis
- Pyogenic infections of the SN
- Clear liquor meningitis
- Viral infections of the SN, in particular Herpes encephalitis
- Neurological complications of HIV infection
  · Demyelinating diseases, in particular Multiple Sclerosis
  · Neurodegenerative diseases; in particular:
- Parkinson's disease, parkinsonism and Huntington's chorea
- Dementias, in particular Alzheimer's disease
- Amyotrophic lateral sclerosis and spinal amyotrophies
- Eredoatassie
  · Disorders of consciousness
  · Epilepsy (classification, symptoms and elements of therapy)
  · Conditions of the peripheral nervous system
- Trigeminal neuralgia
- Peripheral paralysis of the VII cranial nerve
- Polyneuropathies
- Guillain-Barré syndrome
  · Muscle diseases
- Myasthenia gravis
- Muscular dystrophies
- Other myopathies

DIAGNOSIS AND TREATMENT OF NEUROLOGICAL EMERGENCIES
· Coma
· Increased intracranial pressure
· Status epilepticus
· Subarachnoid hemorrhage

- Cranio-cerebral and vertebral-medullary trauma
  · Infections of the nervous system
  · Compression of the spine.

DIAGNOSIS OF NEUROLOGICAL DISEASES DURING INTERNAL DISEASES AND NEUROLOGICAL COMPLICATIONS OF ALCOHOLISM

INDICATIONS AND USE OF THE MAIN NEURORADIOLOGICAL INVESTIGATIONS

Prerequisites

Knowledge of morphology and functions of different parts of central and peripheral nervous system. Neuropharmacology and Neuroradiology

Teaching form

Frontal lessons and ward practical attendance

Textbook and teaching resource

C. Ferrarese I. Appollonio et al. Core Curriculum “Malattie del sistema nervoso” Mc Graw-Hill 2nd ed. 2016

Semester

5th Year - First Semester

Assessment method

Oral exam within the course of Nervous System Disorders

Office hours

E-mail contact with professor for appointment
ildebrando.appollonio@unimib.it

Sustainable Development Goals

GOOD HEALTH AND WELL-BEING | QUALITY EDUCATION