



NEUROLOGY

- INTRODUCTION
- HISTORY
- THE NEUROLOGIC METHOD

Prof. M. GAVRILIUC

DEPARTMENT OF NEUROLOGY!



- Is my great PLEASURE!
- THE MOST INTERESTING SUBJECT MATTER!
- THE CORDIALEST DEPARTMENT OF USMF!
- THE BEST (IMPARTIAL) MARKS!
- I WONT TO EXECUTE THE GRADUATION THESIS ONLY HERE!
- I WONT TO BECOME A NEUROLOGIST! (at least - neurosurgeon!)

DEPARTMENT OF NEUROLOGY?!

- Oh GOD!
- MISSION IMPOSSIBLE!
- IT'A A LOST CAUSE...
- A WASTE OF TIME...
- IT IS NOT A LAUGHING MATTER!
- THINGS LOOK BAD...



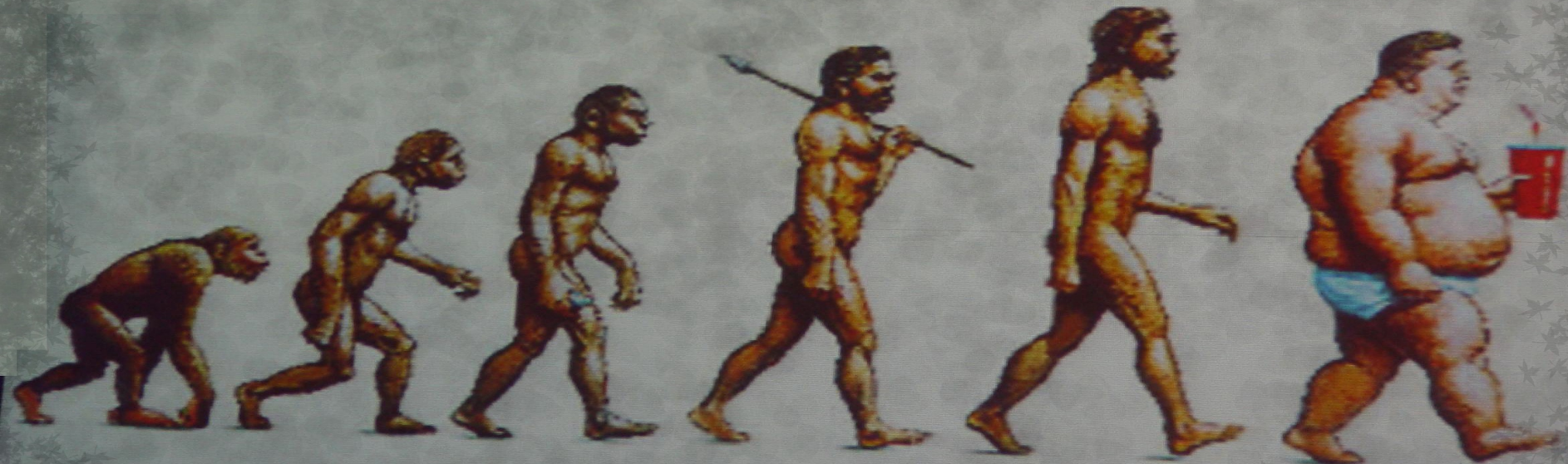
NEUROSCIENCE

- Is the scientific study of the nervous system.
- It is currently an interdisciplinary science that collaborates with other fields such as:
 - neuroanatomy; - neurohistology; - neuroembriology;
 - neurophysiology; - neurochemistry;
 - neurocybernetics; - neurogenetics;
 - neuroendocrinology; - neuropsychology;

etc...

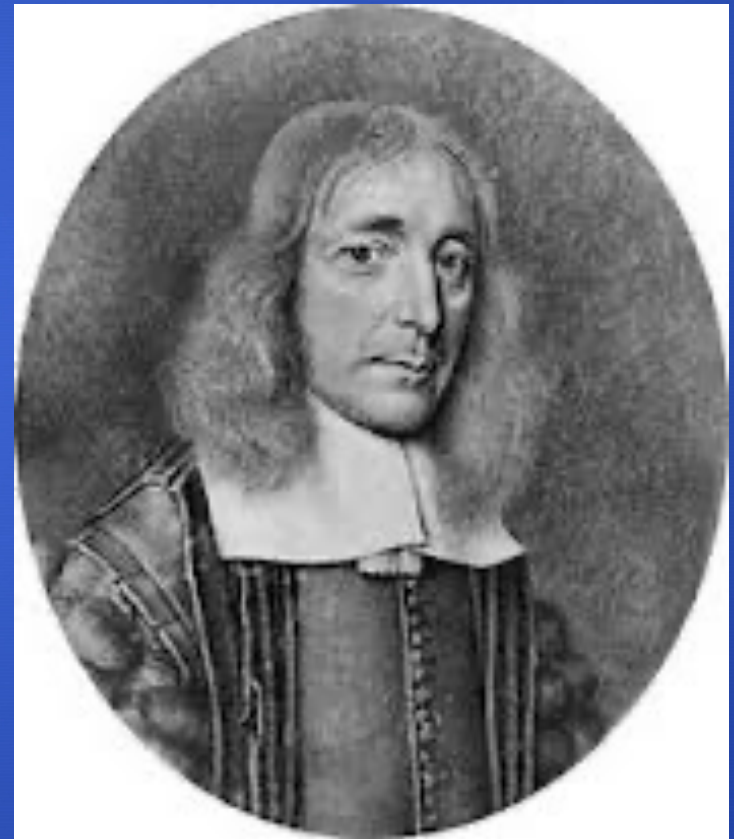
History of Clinical Neurology

Background



HISTORY of NEUROLOGY

- The term „*NEUROLOGY*“ was created by English doctor Thomas Willis
(1621 – 1675)



HISTORY of NEUROLOGY

- The Edwin Smith Surgical Papyrus, written in the 17th century BC, contains the earliest recorded reference to the brain.



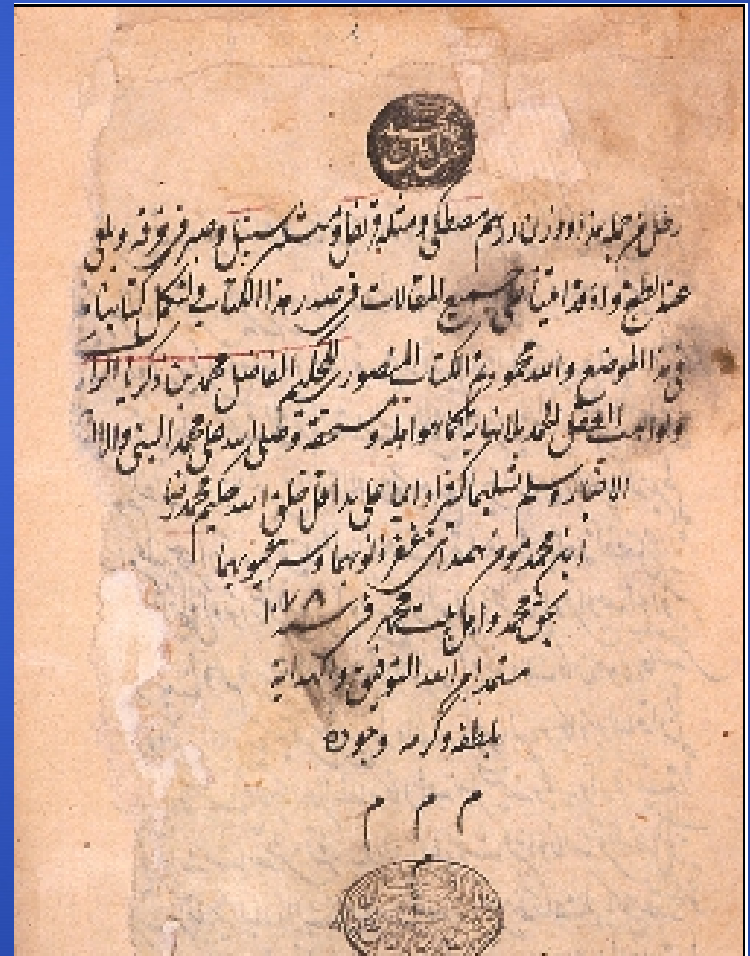
HISTORY of NEUROLOGY

The Hellenistic period



HISTORY of NEUROLOGY

Razi's *Book of
Medicine for
Mansur*
the 10th century



NEUROȘTIINȚELE - ISTORIC

Avicenna – Persian physician Ibn-Sina (980-1037) is considered as a father of modern neuropsychiatry



History of Indian Neurology

- Ancient
- Modern



The 3 humors of Ayurveda

HISTORY of NEUROLOGY

- 1830 "*The nervous system of the body*"



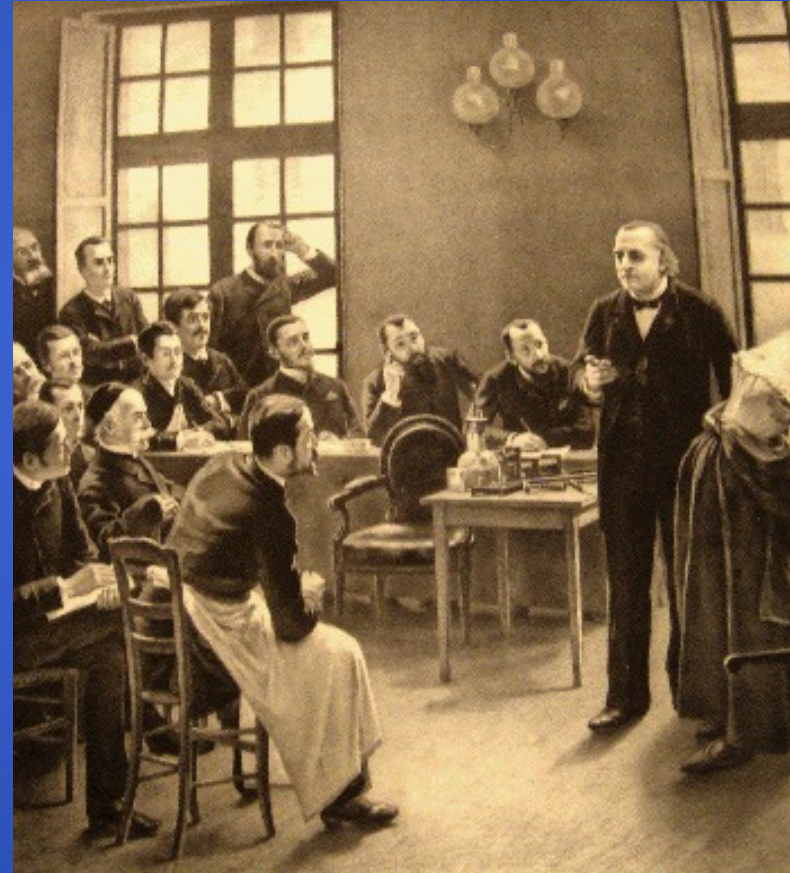
Charles Bell (1774 – 1842)

HISTORY of NEUROLOGY

Jean Martin **CHARCOT**

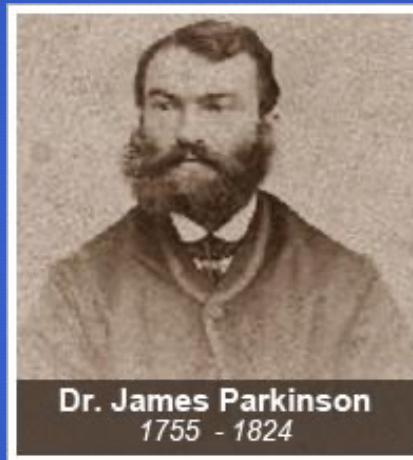
The founder of modern neurology

the XIXth century, France



Une leçon de Charcot à La Salpêtrière
tableau de André Brouillet Brouillet

HISTORY of NEUROLOGY



● 1817

AN
ESSAY
ON THE
SHAKING PALSY.

CHAPTER I.

DEFINITION—HISTORY—ILLUSTRATIVE CASES.

SHAKING PALSY. (*Paralysis Agitans.*)

Involuntary tremulous motion, with lessened muscular power, in parts not in action and even when supported; with a propensity to bend the trunk forwards, and to pass from a walking to a running pace: the senses and intellects being uninjured.

THE term Shaking Palsy has been vaguely employed by medical writers in general. By some it has been used to designate or-

HISTORY of NEUROLOGY

- Romanian school of Neurology

Gheorghe MARINESCU (1863-1938)



- *Anghel Radovici (1885-1956)*
- *Arthur Kreindler (1900-1988)*
- *Vlad Voiculescu (1913-2001)*
- *Gheorghe Pendefunda (1923-1999)*

MOLDOVIAN NEUROLOGY



- Борис Иванович ШАРАПОВ

MOLDOVIAN NEUROLOGY



- Борис Иванович ШАРАПОВ
- Диомид Григорьевич ГЕРМАН

CATEDRA DE NEUROLOGIE USMF „NICOLAE TESTEMIȚANU” anul universitar 2013 - 2014



WELCOME!

WELCOME!

CATEDRA DE NEUROLOGIE USMF „NICOLAE TESTEMIȚANU”
anul universitar 2014 - 2015



Train Your Brain with Neurology!



PREVALENCE OF NEUROLOGIC AND PSYCHIATRIC DISEASES WORLDWIDE

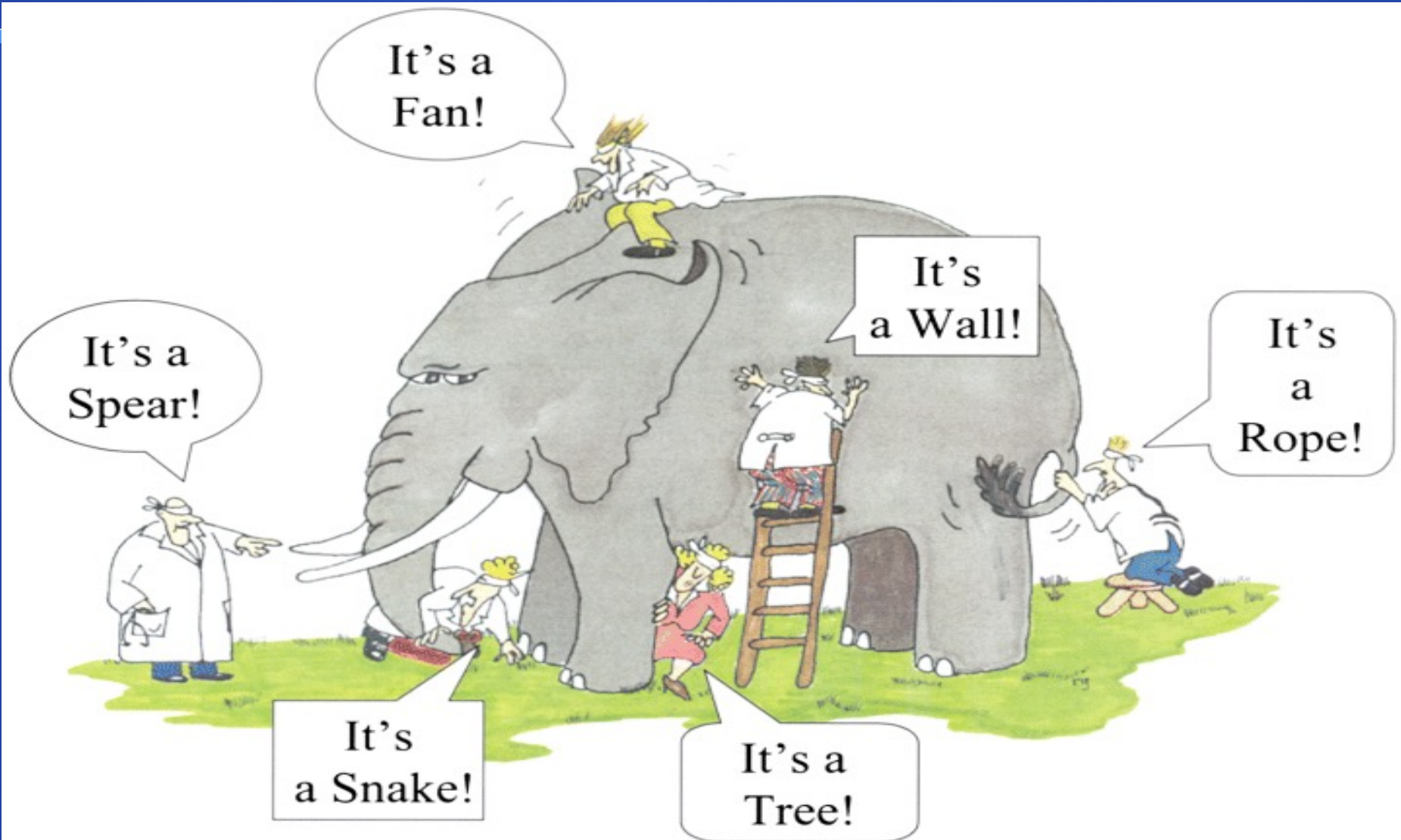
DISORDER	PATIENTS, MILLIONS
Nutritional disorders and neuropathies	352
Migraine	326
Trauma	170
Depression	154
Alcoholism	91
Cerebrovascular diseases	61
Epilepsy	50
Schizophrenia	25
Dementia	24
Neurologic infections	18
Drug abuse	15

Source: World Health Organization estimates, 2002-2005

THE NEUROLOGIC METHOD

- Locate the Lesion(s)
 - one specific location ?
 - is it multifocal ?
 - is a diffuse process present?
- Is the problem in the CNS , the PNS or both?
- If in the CNS, who is responsible:
 - cerebral cortex?
 - basal gangila?
 - brainstem?
 - cerebellum?
- Are the pain-sensitive meninges involved?
- If in the PNS, who is responsible:
 - root(s)?
 - ganglion(s)?
 - plexus?
 - peripheral nerve(s) (motor or sensory, or both)?
- Is neuromuscular junction involved?
- Are muscle involved?
- Are the symptoms restricted to the nervous system, or do they arise in the context of a systemic illness?

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THE NEUROLOGIC METHOD

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THE NEUROLOGIC METHOD

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THE NEUROLOGIC HISTORY

- Patients' descriptions of the complaint
- Temporal course of the illness
- Corroboration of the history by others
- Family history
- Medical illness
- Drug use and abuse and toxin exposure
- Formulating an impression of the patient

THE NEUROLOGIC EXAMINATION

- Cranial Nerve Examination
- Sensory Examination
- Motor Examination
- Sign's of meningeal irritation
- Coordination Examination
- Balance and Gait Examination
- The autonomic nervous system
- The unconscious patient

NEUROLOGIC DIAGNOSIS

- “Where is the lesion?” : ANATOMIC AREA OF INVOLVEMENT (History + Examination)
- “What is the lesion?” : POSSIBLE ETIOLOGIES
- LABORATORY TESTS (Lumbar Puncture and CSF examination; Biopsy)
- NEUROIMAGING
 - Computed Tomography (CT)
 - Ultrasound Techniques (Doppler ultrasound; “duplex” ultrasound; Transcranial Doppler)
 - Magnetic Resonance Imaging (MRI)
 - Positron Emission Tomography (PET)
 - Angiography
- ELECTRODIAGNOSTIC STUDIES
 - Electroencephalography (EEG)
 - Evoked Potentials (EP)
 - Electromyography (EMG)

I see the Elephant!



MODERN TREATMENT OF NEUROLOGIC DISORDERS

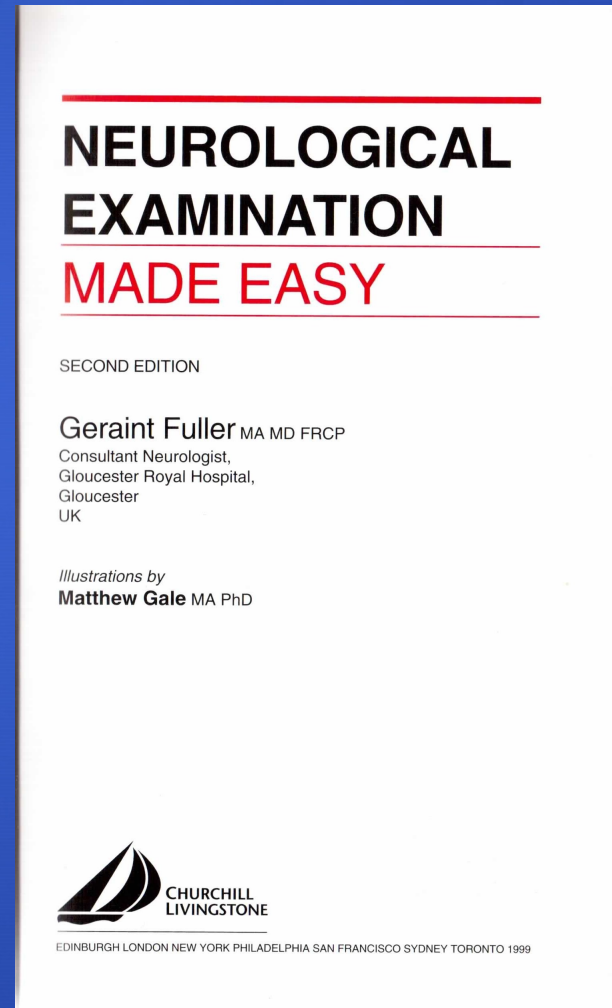
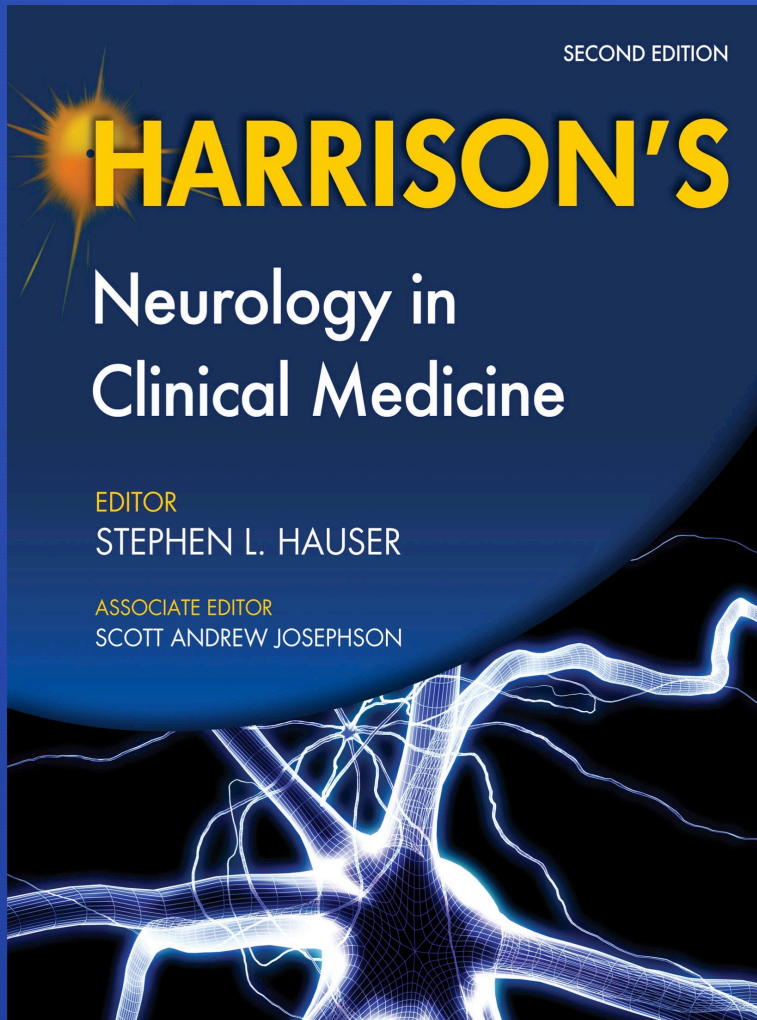
- MEDICAL ASSISTANCE, PATIENT EDUCATION, INFORMATIONS FOR PATIENTS
- COMPLET RECOVERY
- RETURNING TO WORK
- IMPROVEMENT THE PATIENT'S QUALITY OF LIFE
- PREVENTIVE THERAPY
- INTERVENTIONAL NEURORADIOLOGY
- NEUROSURGERY

RECOMMENDED READING

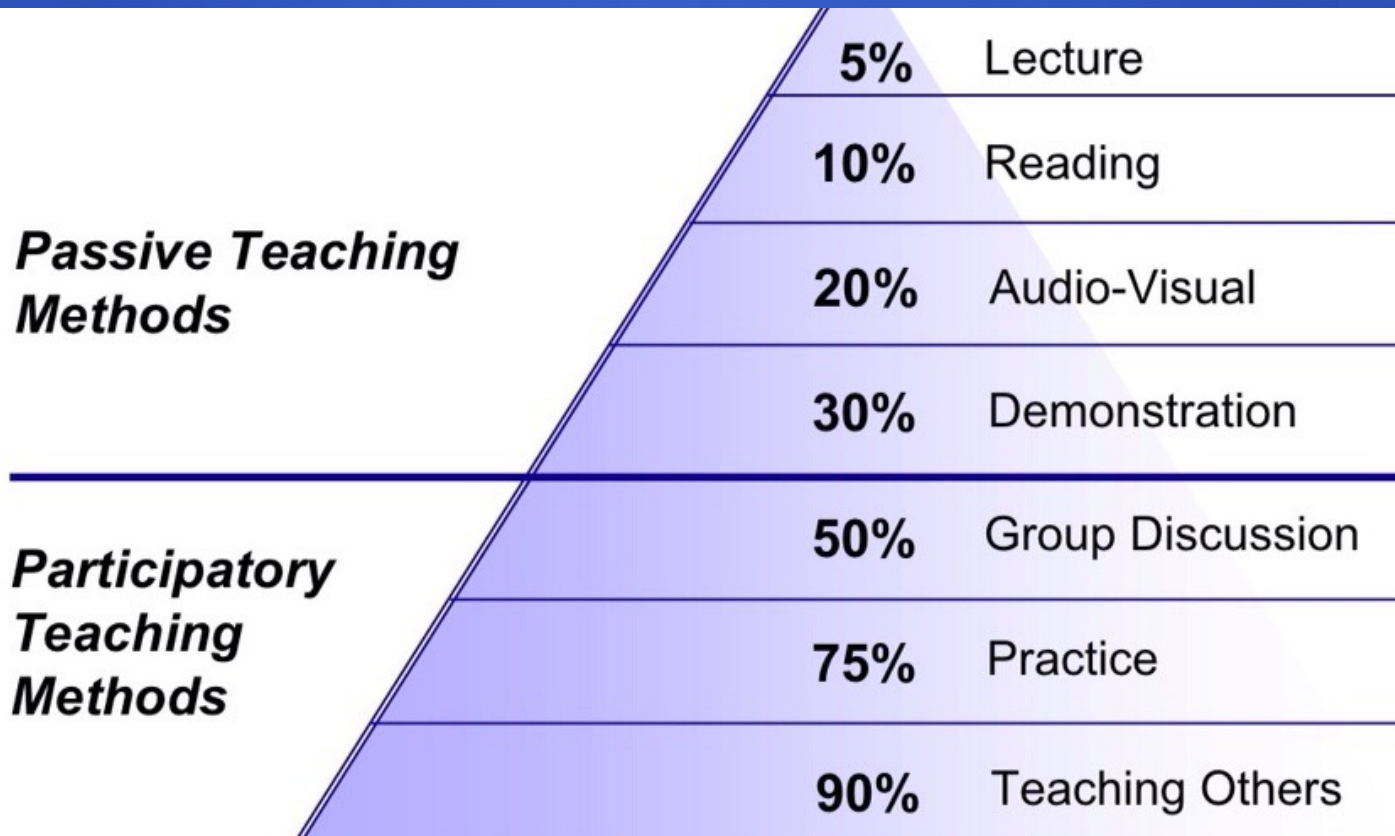
- **Neurologie și neurochirurgie** / Sub red. Gherman D., Moldovanu I., Zapuhlâh Gr. Chișinău, 2003.
- **HARRISON'S Neurology in Clinical Medicine** / editor, S. L. Hauser – 2nd ed. New York: McGraw-Hill; 2010.



RECOMMENDED READING



Dales' pyramid of learning



Gavage in Foie Gras



To receive the Eucharist



Curling sport



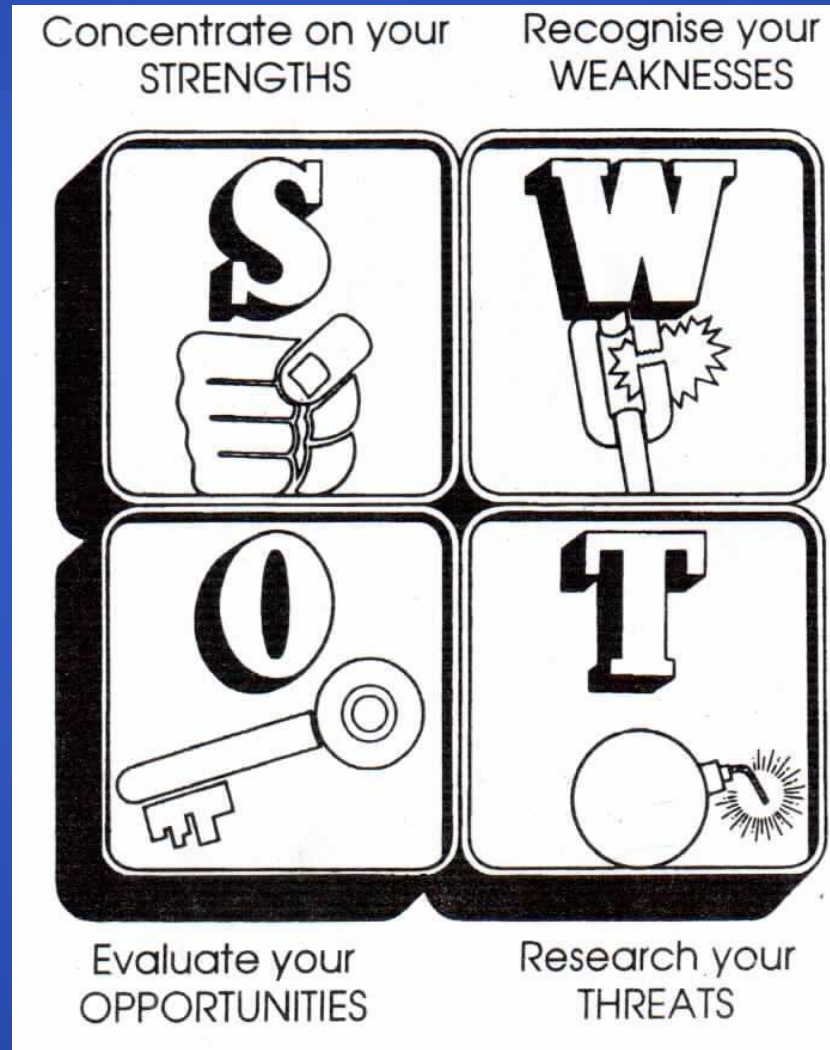
Teach me... ... and I will forget ?

- *Tell me and I will forget*
- *Show me and I will remember*
- *Involve me and I will understand*
- *Step back and I will act*



Confucius

Do your SWOT analysis today!



NINE TIPS

how to learn NEUROLOGY

1. Review your daily regime and reorganize it if necessary. Night sleep: 7 hours, remaining time – **for learning** with short breaks for sports, family obligations, meals and personal hygiene. Nothing will happen to you if for **3 weeks** you will forget about entertainment and other time wasting activities.

NINE TIPS

how to learn NEUROLOGY

2. Reconcile with the thought that **you will need to return to many objects** that you have already passed the exams: anatomy, histology, biochemistry, normal and pathological physiology, morphopathology, pharmacology, etc., and even some notions of physics, mathematics, language and literature you studied in school. Some compartments of the respective objects will need be refreshed, others will need to "discover" and learn them as something completely new.

NINE TIPS

how to learn NEUROLOGY

3. Neurology as object of study is divided into two parts: (1) **semiology** (basics + symptoms, signs, syndromes + clinical examination methodology) and (2) **nozology** (diseases itselfs). Start learning just today the topic for which the lecture was announced for tomorrow. Use at least 2 textbooks (one in your native language, one in english). Neurology is a very logic discipline, the most effective method of learning it is the logical one. But associative memorization is also allowed (for example the association by color: blue - sensitivity, red - motility, green - the vegetative nervous system). Many terms in medicine in general, and in neurology in particular, derive from the Greek language. **Get into the essence** of their translation and it will be much easier and interesting to memorize them (for example: *Alexia* (verbal blindness) - lack of ability to understand written language: a = *absence*, lexis = *word*).

NINE TIPS

how to learn NEUROLOGY

4. Don't learn by heart! Do not leave the homework to learn for another day! It is impossible to learn the neurological semiology "on the jumps", the understanding of the next topic is based on the knowledge of the previous one. As a mature person cannot qualitatively learn a foreign language without knowing its alphabet, so it is impossible to learn neurology without knowing its semiology.

NINE TIPS

how to learn NEUROLOGY

5. The lecture is not a dictation, it is not an exhaustive presentation of the material. The lecture gives you the opportunity to see the subject ("*the elephant*") in its entirety, other particularities, other subtleties and many other features of this topic you must learn yourself.

NINE TIPS

how to learn NEUROLOGY

6. Go back to the semiology whenever you've forgotten something. Draw yourself several times the main schematics of semiology, even if they seem to be very clear in the textbook or on the slide. **Don't be lazy!**

NINE TIPS

how to learn NEUROLOGY

7. Don't stress if something you don't understand! Take a 10-minute break and try to find the same notion in another source, or contact your colleague and talk to him, and if and after that is still not clear - call the mentor's help. Do not disturb the mentor with many small questions.

NINE TIPS

how to learn NEUROLOGY

8. Learn new material with exam questions in front of you. Then quiz yourself. **Don't learn by heart the correct answers to the tests! You need to know the subject, not the answers to the tests.**

9. Don't forget about student diplomacy!

God bless You !

