Programme of Study : General Medicine

Course : Neurosurgery

Abbreviation : NCH/VA011

Schedule : 18 hours

Course Distribution : 5th year

Number of Credits : 2

Course Form : Seminars and practical training

Seminars:

Teachers:

Prof. MUDr. Lumír Hrabálek, Ph.D.

Doc. MUDr. Ondřej Kalita, Ph.D., MBA
Doc. MUDr. Miroslav Vaverka, CSc.
Doc. MUDr. David Krahulík, Ph.D. MBA
MUDr. Martin Gabryš
MUDr. Vlastimil Novák, Ph.D.
MUDr. Přemysl Stejskal, Ph.D.
MUDr. Martin Hampl, Ph.D.
MUDr. Matej Halaj
MUDr. Lubomír Jurák, Ph.D.
MUDr. Michael Mrúzek, Ph.D.
MUDr. Jakub Jablonský

Study : Block starts at 09: 00 AM, Department of Neurosurgery University Hospital Olomouc, Building No M3 (seminární místnost). The teaching consists of practical seminars and exercises. Basic knowledge with planed subjects of the seminars is insisted. The practical training includes patient case discussion about diagnostic and treatment strategy.

	Weekly block	topic	No.of. Less.	Lecturers
1	**Monday**	○ The approaches to the intracranial space and spinal canal. ○ Fractures of the vault and skull base, liquorrhoea and its surgical treatment. ○ Traumatic intracranial hematomas.	**4**	

		○ An intensive care in neurosurgery, brain trauma (contusion, diffusion axon injury, brain edema). ○ Spine fractures and spinal cord injury.		
2	**Tuesday**	○ Surgery of the intracranial arteries (SAH, aneurysm, AVM, cavernoma). ○ Extracranial vascular surgery (CEA, CAS, EC- IC bypass). ○ Inflammatory brain and spine diseases. ○ The peripheral nerves surgery (tumors, injuries, entrapment syndromes). ○ Neuromodulation, stereotactic neurosurgery, and surgical treatment of the pain. ○ Radio-surgical treatment of the intracranial lesion.	**5**	
3	**Wednesday**	○ Degenerative diseases of the cervical spine. ○ Degenerative disease of the lumbar spine. ○ The expansion of spine and spinal canal. ○ The malignant brain tumors (Gliomas). ○ The benign intracranial tumors.	**5**	
4	**Thursday**	○ Tumors of the sellar region. ○ Brain and spine tumors in childhood. ○ Congenital anomalies (Chiari malformation, craniosynostosis, meningocele). ○ Hydrocephalus.	**4**	

Completed by: Colloquium

Requirements: 100% attendance, oral examination - colloquium.
Students can be absent of serious reasons up to 1/3 of the seminars. The missed seminars must be completed.

Recommended reading:

- Handbook of Neurosurgery, Mark S Greenberg, MD
- WHO Classification of Tumours of the Central Nervous System, Revised 4th Edition. D.N. Louis, H. Ohgaki, O.D. Wiestler et al (IARC, Lyon 2016).

Questions for examination

1. The approaches to the intracranial space and spinal canal.
2. Fractures of the vault and skull base, liquorrhoea and its surgical treatment.
3. Traumatic intracranial hematomas.
4. An intensive care in neurosurgery, brain trauma (contusion, diffusion axon injury, brain edema).
5. Spine fractures and spinal cord injury.
6. Surgery of the intracranial arteries (SAH, aneurysm, AVM, cavernoma).
7. Extracranial vascular surgery (CEA, CAS, EC- IC bypass).
8. Inflammatory brain and spine diseases.
9. Peripheral nerves surgery (tumors, injuries, entrapment syndromes).
10. Neuromodulation, stereotactic neurosurgery, and surgical treatment of the pain.
11. Radio-surgical treatment of the intracranial lesion.
12. Degenerative diseases of the cervical spine.
13. Degenerative disease of the lumbar spine.
14. Tumors of the spine and spinal canal.
15. Malignant brain tumors (Gliomas).
16. Benign intracranial tumors.
17. Tumors of the sellar region.
18. Brain and spine tumors in childhood.
19. Congenital anomalies (Chiari malformation, craniosynostosis, meningocele).
20. Hydrocephalus.