A. TESTS OF MEDICAL ONCOLOGY

CNS Tumors

1. The most common primary brain tumors are:
a) anaplastic astrocytomas
b) glioblastomas
c) oligodendrogliomas
d) there is no true answer

2. The mean survival rate for malignant CNS tumors is:
a) 5-10 months
b) 15-18 months
c) 2 years
d) One year

3. A radical method for the treatment of solitary (<3 cm) CNS tumors is:
a) radiotherapy of the brain
b) radiosurgery
c) operative treatment
d) chemotherapy

4. Radiation is an important part of the complex treatment. The total dose of craniotherapy is:
a) 40 Gy
b) 60 Gy
c) 80 Gy
d) there is no true answer

5. Chemotherapy incorporates:
a) Cisplatin
b) Gemcitabine
c) Temozolamide
d) there is no true answer

6. Medulloblastoma is predominantly located in the rear cranial well and occurs most commonly in:
a) the 3rd and 4th decades of life
b) childhood
c) 2nd and 3rd decade of life
d) newborns

7. The main methods of diagnosis and follow-up of treatment effect in CNS tumors are:
a) CT and MRI
b) MRI and PET scan
c) CT and PET scan
d) all answers are correct

8. Symptomatic therapy in CNS tumors includes:
a) dexamethasone, tranquilizers, diuretics
b) anxiolytics, diuretics
c) anticonvulsants, diuretics, dexamethasone
d) all answers are correct

9. Brain metastases are yielded most commonly by:
a) Prostate and lung carcinoma
b) Thyroid and gastric carcinoma
c) Carcinoma of the mammary gland and lung carcinoma
d) kidney and GIT carcinoma

10. Which treatment method will be preferred for solitary brain metastasis:
a) Brachytherapy
b) Percutaneous external irradiation
c) Operational extirpation
d) Radiosurgery

11. Temozolamide used to treat brain tumors belongs to which group of cytostatics based on its mechanism of action:
a) anthracycline
b) antimetabolite
c) an alkylating agent
d) a tyrosine kinase inhibitor

12. Methods for the treatment of multiple brain metastases are:
a) surgery
b) radiotherapy
c) chemotherapy
d) b + c

List the symptoms of increased intracranial pressure
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1	2	3	4	5	6	7	8	9	10	11	12								
b	b	b	b	c	b	a	c	c	d	c	d								

B. TESTS OF RADIATION THERAPY

1. Behavior in advanced larynx carcinoma is:
a) surgery, postoperative radiotherapy, chemotherapy
b) Radiation therapy
c) Both responses are correct
d) tracheostomy

2. Mediastinal syndrome is an urgent condition which therapeutic behavior requires:
a) radiotherapy
b) chemotherapy
c) corticosteroids
d) everything listed

3. High radio/chemosensitive are:
a) lung carcinoma
b) testis seminoma
c) lymphomas
d) b + c

4. Which one of the three blood lines is most sensitive to radiation is:
a) red blood line
b) white blood line
c) platelets
d) a + b

5. Transverse myelitis is (indicate 1 wrong answer):
a) irreversible complication of the spinal cord
b) late radiation reaction
c) the occurrence of paraneoplastic syndrome
d) early radiation reaction

6. Radio-Chemotherapy is indicated in primary brain tumors with following histology:
a) astrocytoma
b) glioblastoma multiforme
c) ependymoma
d) meningioma

7. Preoperative radio-chemotherapy is recommended to:
a) colon ascendens carcinoma
b) rectal carcinoma
c) carcinoma of the sigma
d) carcinoma of colon descendens

8. Radio-chemotherapy is:
a) preoperative radiotherapy + postoperative chemotherapy
b) postoperative radiotherapy, followed by chemotherapy
c) postoperative chemotherapy, followed by radiotherapy
d) concurrent administration of radiotherapy + chemotherapy

9. Cauda equina is an urgent condition which therapeutic behavior requires:
a) neurosurgical intervention (if possible)
b) painkillers + corticosteroids
c) radiotherapy
d) a + c

10. In which histological type of testicular tumor NO radiation therapy is performed:
a) seminoma
b) teratocarcinoma
c) lymphoma
d) embryonal

1	2	3	4	5	6	7	8	9	10									
b	d	d	b	c	b	b	d	d	b									

C. TESTS OF NUCLEAR MEDICINE

1. Which are the main goals of nuclear oncology:
a) Imaging of the functional activity and the degree of proliferation of the tumor
b) The degree of malignant tumor spread: lymphogenic and haematogenic
c) Imaging and quantitative assessment of the effect from chemo- and hormone-therapy
d) All answers are correct

2. The scanning systems used in nuclear medicine are based on the principle of:
a) Emission of Gamma-rays from the scanning system
b) Transition of Roentgen-rays through the patient's body
c) Detection of Gamma-rays or positron emission (pairs of annihilation Gamma-rays) emitted from the studied object
d) All answers are correct

3. Which methods of nuclear medicine are used for diagnosis of malignant tumours:
a) PET/CT
b) Gamma camera scintigraphy
c) Radioimmunoassay of tumour markers
d) All answers are correct

4. Nuclear medicine diagnosis provides:
a) Metabolic imaging
b) Quantitative assessment of physiological processes in the human body
c) Targeted planning of radiotherapy
d) All answers are correct

5. Nuclear medicine applies:
a) Unsealed radioactive sources for medical diagnosis
b) Unsealed radioactive sources for radiotherapy
c) Sealed radioactive sources for medical diagnosis and therapy
d) Correct answers – a) and b)

6. PET/CT is a multimodality system combining:
a) PET scanner with low-dose CT for improvement of the quality and precise localization of the functional image
b) PET scanner with possibility for additional targeted diagnostic contrast CT
c) Acquisition and fusion of functional and structural-anatomic images
d) All answers are correct

7. CT and PET scans demonstrate different aspects of disease indicating regions with:
a) Altered metabolism (PET) and areas of structural change (CT)
b) Altered metabolism (CT) and areas of structural change (PET)
c) Altered metabolism (PET) and areas of structural change (PET)
d) Altered metabolism (CT) and areas of structural change (CT)

8. Which of the following diagnostic methods belong to modern Nuclear medicine:
a) PET/CT
b) SPECT/CT
c) PET/MRI
d) All answers are correct

9. Which radionuclides are used for metabolic brachytherapy:
a) High-energy γ (Gamma)-emitters
b) β- (Beta)-emitters
c) β- (Beta) and γ (Gamma)-emitters
d) Correct answers – b) and c)

10. Nuclear medicine methods are used for:
a) Diagnosis of benign and malignant diseases
b) Treatment of benign diseases
c) Treatment of malignant diseases
d) All answers are correct

1	2	3	4	5	6	7	8	9	10										
d	c	d	d	d	d	a	d	d	d										