**1. Etiology of the pathological process in the image is:**

 a. infectious

 b. autoimmune

 c. tumoral

 d. discirculatory

 e. degenerative

**2. Morphological changes of the pathological process in the image are:**

a. foci of necrosis

b. soft, opaque leptomeninges

c. yellow-green mass deposits

d. hyperemic vessels

e. fibrin deposition

**3. Clinical manifestations of the pathological process in the image are:**

 a. headache

 b. exophthalmos

 c. cloudy, purulent cephalorachidian fluid

 d. stiffness of occipital muscles

 e. hydrocephalus

**4. Complications of the pathological process in the image are:**

 a. purulent encephalitis

 b. hemorrhagic ictus

 c. ischemic ictus

 d. cerebral edema with cerebellar tonsillar herniation

 e. hydrocephalus

**5. Etiology of the pathological process in the image is:**

 a. infectious

 b. autoimmune

 c. tumoral

 d. discirculatory

 e. degenerative

**6. Morphological changes of the pathological process in the image are:**

a. lymphocytic infiltration

b. vascular hyperemia

c. foci of necrosis

d. microhemorrhages

e. neutrophilic infiltration

**7. Clinical manifestations of the pathological process in the image are:**

 a. headache

 b. exophthalmos

 c. cloudy, purulent cephalorachidian fluid

 d. stiffness of occipital muscles

e. hemorrhagic cerebrospinal fluid

**8. Complications of the pathological process in the image are:**

 a. purulent encephalitis

 b. hemorrhagic ictus

 c. ischemic ictus

 d. cerebral edema with cerebellar tonsillar herniation

 e. hydrocephalus

**9. Etiology of the pathological process in the image is:**

 a. infectious

 b. autoimmune

 c. tumoral

 d. discirculatory

 e. degenerative

**10. Identify the name of the pathological process:**

 a. ischemic stroke

 b. purulent leptomeningitis

 c. purulent encephalitis (abscess)

 d. parenchymal hemorrhage

 e. metastasis of cancer

**11. Clinical manifestations of the pathological process in the image are:**

 a. increased intracranial pressure

 b. impaired coordination of movements

 c. cloudy, purulent cephalorachidian fluid

 d. stiffness of occipital muscles

e. leukocytosis

**12. Complications of the pathological process in the image are:**

 a. purulent encephalitis

 b. hemorrhagic ictus

 c. ischemic ictus

 d. cerebral edema with cerebellar tonsillar herniation

 e. septicemia

**13. Etiology of the pathological process in the image is:**

 a. infectious

 b. autoimmune

 c. tumoral

 d. discirculatory

 e. degenerative

**14. Morphological changes of the pathological process in the image are:**

a. focus of necrosis with hemorrhagic imbibition

b. focus of gray softening (demyelination zone)

c. demyelination zone

d. microhemorrhages

e. hemorrhagic stroke

**15. Clinical manifestations of the pathological process in the image are:**

 a. it appears between the ages of 20 to 40 years old

 b. it appears between the ages of 50 to 60 years old

 c. impairment of motor functions

 d. monoparesis

e. pathological tremor

**16. Complications of the pathological process in the image are:**

 a. dementia

 b. expressed paralysis

 c. pneumonias

 d. hydrocephalus

 e. myocardial infarction

**17. For which pathological processes are characteristic brain changes in the image:**

 a. brain hemiatrophy

 b. compression atrophy

 c. discirculatory atrophy

 d. Alzheimer's disease

 e. purulent meningoencephalitis

**18. Morphological changes of the pathological process in the image are:**

a. reduction of mass and volume of the brain

b. internal hydrocephalus

c. purulent leptomeningitis

d. flattening of circumvolutions in cerebral edema

e. external hydrocephalus

**19. Clinical manifestations of the pathological process in the image are:**

 a. headache

 b. senile dementia

 c. intellectual disabilities

 d. emotional lability

e. convulsive syndrome

**20. Complications of the pathological process in the image are:**

 a. parenchymal hematoma

 b. ischemic stroke

 c. pulmonary infections

 d. bronchopneumonia

 e. purulent leptomeningitis

**21. Etiology of the pathological process in the image is:**

 a. thrombosis of the cerebral arteries

 b. atherosclerosis of the cerebral arteries

 c. aneurysm of the cerebral artery

 d. hypertensive crisis

 e. hemophilia

**22. Morphological changes of the pathological process in the image are:**

a. parenchymal hematoma

b. development mechanism - per rhexis

c. ischemic stroke

d. hemorrhagic stroke

e. development mechanism - per diabrosin

**23. Clinical manifestations of the pathological process in the image are:**

 a. impairment of motor functions

 b. impaired tactile function

 c. speech impairment

 d. hearing impairment

e. visual impairment

**24. Complications of the pathological process in the image are:**

 a. arterial hypertension

 b. intracranial pressure

 c. arterial hypotension

 d. hydrocephalus

 e. cerebral edema with cerebellar tonsillar herniation

**25. Etiology of the pathological process in the image is:**

 a. arterial hypertension

 b. atherosclerosis of the cerebral arteries

 c. thromboembolism arteries

 d. thrombosis of the cerebral veins

 e. external hydrocephalus

**26. Morphological changes of the pathological process in the image are:**

a. focus of necrosis

b. focus of hyalinosis

c. cerebral edema

d. leukocytic infiltration

e. lymphocytic infiltration

**27. Clinical manifestations of the pathological process in the image are:**

 a. it appears between the ages of 20 to 40 years old

 b. it appears between the ages of 50 to 60 years old

 c. impairment of motor functions

 d. monoparesis

e. pathological tremor

**28. Complications of the pathological process in the image are:**

 a. dementia

 b. expressed paralysis

 c. pneumonias

 d. hydrocephalus

 e. myocardial infarction

**29. Identify the name of the pathological process:**

 a. purulent encephalitis (abscess)

 b. hemorrhagic stroke with cystic transformation

 c. brain tumor

 d. ischemic stroke with cystic transformation

 e. brain abscess

**30. Morphological changes of the pathological process in the image are:**

a. focus of necrosis with soft consistency

b. focus of necrosis with dense consistency

c. cyst formation in the focus of necrosis

d. abscess formation in the focus of necrosis

e. tumor metastasis

**31. Clinical manifestations of the pathological process in the image are:**

 a. it appears between the ages of 20 to 40 years old

 b. it appears between the ages of 50 to 60 years old

 c. impairment of motor functions

 d. monoparesis

e. pathological tremor

**32. Complications of the pathological process in the image are:**

 a. dementia

 b. expressed paralysis

 c. pneumonias

 d. hydrocephalus

 e. myocardial infarction

**33. Identify the name of the pathological process:**

 a. tumor metastasis

 b. brain tumor (ependymoma)

 c. brain tumor (glioblastoma)

 d. ischemic stroke with cystic transformation

 e. brain abscess

**34. Morphological changes of the pathological process in the image are:**

a. focus of soft consistency with unclear borders

b. focus of dense consistency with clear borders

c. malignant tumor

d. benign tumor

e. variegated appearance with foci of necrosis

**35. Clinical manifestations of the pathological process in the image are:**

 a. occurs more frequently in men aged between 40 and 55 years

 b. occurs more frequently in women aged between 60 and 65 years

 c. metastasizes into internal organs

 d. paralysis, motor impairment

e. does not metastasize into internal organs

**36. Complications of the pathological process in the image are:**

 a. hydrocephalus

 b. metastases in internal organs

 c. purulent leptomeningitis

 d. cerebral edema with cerebellar tonsillar herniation

 e. intracerebral metastases

**37. Identify the name of the pathological process:**

 a. tumor metastasis

 b. brain tumor (ependymoma)

 c. brain tumor (glioblastoma)

 d. ischemic stroke with cystic transformation

 e. brain abscess

**38. Morphological changes of the pathological process in the image are:**

a. atypical cells

b. macrophages

c. lymphocytes

d. foci of necrosis

e. polymorphic cells

**39. Clinical manifestations of the pathological process in the image are:**

 a. occurs more frequently in men aged between 40 and 55 years

 b. occurs more frequently in women aged between 60 and 65 years

 c. metastasizes into internal organs

 d. paralysis, motor impairment

e. does not metastasize into internal organs

**40. Complications of the pathological process in the image are:**

 a. hydrocephalus

 b. metastases in internal organs

 c. purulent leptomeningitis

 d. cerebral edema with cerebellar tonsillar herniation

 e. intracerebral metastases

**41. Identify the name of the pathological process:**

 a. tumor metastasis

 b. brain tumor (ependymoma)

 c. brain tumor (glioblastoma)

 d. ischemic stroke with cystic transformation

 e. brain abscess

**42. Morphological changes of the pathological process in the image are:**

a. focus of soft consistency with unclear borders

b. focus of dense consistency with clear borders

c. malignant tumor

d. benign tumor

e. develops from the ependyma of the ventricles

**43. Clinical manifestations of the pathological process in the image are:**

 a. occurs more frequently in in children and adolescents

 b. occurs more frequently in women aged between 40 and 55 years

 c. metastasizes into internal organs

 d. hydrocephalus

e. does not metastasize into internal organs

**44. Complications of the pathological process in the image are:**

 a. hydrocephalus

 b. metastases in internal organs

 c. purulent leptomeningitis

 d. cerebral edema with cerebellar tonsillar herniation

 e. malignant transformation

**45. Differentiation of a low grade astrocytoma from glioblastoma multiforme is based on:**

1. absence of necrosis in glioblastoma multiforme
2. presence of necrosis in glioblastoma multiforme
3. presence of necrosis in a well differentiated astrocytoma
4. presence of vascular proliferation in a well differentiated astrocytoma
5. presence of vascular proliferation in a glioblastoma multiforme

**46. The most common brain tumor in adults is:**

1. low grade astrocytoma
2. meningioma
3. metastatic carcinoma
4. glioblastoma muliforme
5. oligodendroglioma

**47. The following tumor occurs commonly in the ventricles and in the filum terminale of the spinal cord:**

1. pilocytic astrocytoma
2. hemangioblastoma
3. oligodendroglioma
4. meduloblastoma
5. ependimoma

**48. A brain tumor which sometimes contains psammoma bodies is:**

1. hemangioblastoma
2. meningioma
3. germ cell tumor
4. primary brain lymphoma
5. pineoblastoma

**49. Identify primary malignancies account for the majority of metastatic brain tumors:**

1. lung carcinoma, breast carcinoma, melanoma
2. testicular seminoma, ovarian thecoma, melanoma
3. lung carcinoma, prostatic carcinoma, endometrial carcinoma
4. pancreatic carcinoma, melanoma, endometrial carcinoma
5. salivary glands carcinoma, ovarian thecoma, testicular seminoma

**50. What is the most common primary intracranial tumor in adults:**

1. meningioma
2. ependimoma
3. pineoblastoma
4. craniopharyngioma
5. glioblastoma multiforme

**51. The following tumor contains Rosenthal fibers:**

1. ependimoma
2. oligodendroglioma
3. glioblastoma multiforme
4. meningioma
5. pilocitic astrocitoma

**52. The following statements is/are true regarding oligodendroglioma:**

1. account for less than 15% of gliomas
2. usually a slow growing tumor, has better prognosis than astrocytoma
3. may be circumscribed and usually contain calcification
4. has a predilection for white matter and histologically tumor cells have a "fried egg" appearance
5. all of the listed

**53. The following tumors are considered to be glial:**

1. meningioma
2. craniopharingioma
3. astrocytoma
4. oligodendroglioma
5. ependimoma

**54. The following tumors are considered to be neuronal:**

1. meningioma
2. medulloblastoma
3. gangliocytoma
4. ganglioglioma
5. astrocytoma