

- 1-certain changes happen in tumor cells to reduce recognition from Cytotoxic T-cells but it activates part of the innate system? Mutation in MHC proteins
  - 2-Best finding that indicates malignancy ? invasion
  - 3- Benign tumor ? Meningioma
  - 5-a question talking about cells with hyperchromatic nuclei involving the whole thickness of the membrane ? Carcinoma in situ
  - 6- about melanoma ? more than one of the above ( tanning salon , mutation in CDKN2A )
  - 10- patient with prostate cancer which of the following can be used to make sure that it's prostate cancer "(eshi zy heek ) ? Prostate specific antigen (PSA )
  - 11-Women with ovarian carcinoma which has columnar cells , cartilage , bone , kol eshi what is it ?
- Teratoma
- 14-so2al b7ki 3n Episten Barr virus o b7ki which is wrong ? patient with Burkitt lymphoma most commonly have over-expression of LMP-1 (hyeh most commonly MYC overexpression )
  - 15-eshe b7ki 3n el HPV o bs2l which is correct ? integration in the host genome cause over-expression of E6 E7 Protein
  - 17-you are making salad and you were cut and the doctor was 7mar making the cut worse however the size of the wound has decreased because ? contraction of myofibroblast
  - 18-you are making salad again and the doctor was not 7mar and the cut was healed after removal of stitches which is wrong ? injured tissue regain most of it's strength after removal of stitches
  - 24-in tumor there was decreased expression of P16 and p14 but there was no detected mutation of these genes. How was it silenced ? methylation
  - 25-a patient with abdominal pain then later biopsy revealed a mass of the pancreas with of the following mutations are related to it ? mutation in TGF-B (SMAD )
  - 27-a woman with a lump in her left breast and enlarged lymph nodes and nodes in the lungs the staging of the tumor is ? T4 N2 M1
  - 29-anti inflammatory agent ? iL10
  - 30- Product of lipoxigenase pathway ? leukotriene C4
  - 31-Wrong about neutrophils ? they are never seen in chronic inflammation
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1- ALL of the following has a minimal replicative activity in their normal state EXCEPT :

- a- Hematopoietic cells
- b- Smooth muscle cells
- c- Hepatocytes

Answer: A

4- A man from JAPAN ....., the diagnosis shows that he has a cancer, the most likely kind of cancer would he has is :

- a- Colon Cancer
  - b- Prostatic Cancer
  - c- Stomach Cancer
- C

5- Wound strength after sutures are removed at 1 week is :

- a- 5% of the unwounded skin.
- b- 10% of the unwounded skin
- c- 15% of the unwounded skin
- d- 70% of the unwounded skin
- e- 80% of the unwounded skin

B

6- A question about chronic myeloid leukemia ( CML ) : the answer : It shows an increased tyrosine kinase activity

7- Which of the following is true about Keloid :  
Increased tissue granulation

9- hepatic cancer is more probably metastasized from :

- a- brain
- b- bladder
- c- pancreas
- d- Bone marrow

C

11- which statement is false ?

fibronectin is the most abundant glycoprotein in basement membrane ( must be laminin )

13- which of the following would not develop into cancer ?

leiomyoma of the uterus

15- which is involved in recruitment of smooth muscle cells in angiogenesis?

PDGF

18- which one of these is not an autosomal dominant disease

xeroderma pigmentosum

21- which of the following would lead to cell transformation ?

loss of the checkpoint between G1 and S

31- a CT scan showed a 4cm mass in the lung, tests revealed that it is bronchogenic carcinoma, patients also suffers from hypercalcemia and muscle weakness, the most likely cause of hypercalcemia is:

paraneoplastic syndromes

32- A patient with colocecum cancer what serum marker would be good to test in his/her case ?

Carcinoembryonic

33- Definitive test for cancer ?

excision biopsy

34- a disorder associated with mismatch repair :

hereditary non polyposis Coli

35- retinoblastoma develops when ?

there's a loss of heterogeneity

36- the wrong statement about a mutation of VHL gene:

Leads to a decrease in HIF

37- a woman with a dysplastic tissue in the cervix that is occupying the full thickness of the epithelial

tissue , the best description is ?

Carcinoma in situ

38- HER2 is :

A growth factor receptor

39- about BRCA1 gene :

responsible for DNA repair

40- EBV virus in non-hodgkin lymphoma is associated with :

MYC t(14:18)

42- a question about the histological grading of prostate invasive cancer:

resemblance to the surrounding tissue

43- A 60 year old man ,working 30 years in a factory, bladder cancer, what is the agent?

aniline dye

44- Most frequent chemical agent to cause lung cancer:

a- benzopyrene alpha ( the most probable answer )

b- asbestos

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## **PATHOLOGY:**

18- synthesis of MMPs inhibited by: TIMP

19- healing by first intention: minimal wound contraction

20- maximal improvement of the wound: 70% - 80% after 3 months

21- wrong statement: all cancers have a deadly course

22- most important feature related to malignancy: fixed to the skin

25- which of the following isn't sporadic cancer arise in the childhood: skin cancer

26- wrong statement: Hamartoma is a congenital anomaly

27- wrong statement: the more anaplastic, the more likely to have specialized function

29- anaplasia means: lack of differentiation

31- nucleotide excision repair defect: xeroderma pigmentosum

32- is not a precursor of cancer: hemangioma

33- wrong statement (tumor progression): don't involve developing

resistance for drugs

34- emerging hallmark: evasion of immune system

35- ERBB2 mutation: Amplification

37- 9:22 translocation: ABL

39- wrong statement (RB): E6 protein affects it

40- sense DNA damage and release TP53: ATM

41- inherited mutant in p53 gene cause: Li-Fraumeni

45- not an angiogenesis inhibitor: PDGF

48- wrong statement (metastasize): increase in regions rich in blood vessels

49- HNSCC .. correct: have microsatellite instability (MSI)

50- hypersensitivity to ionizing radiation: Ataxia telangiectasia

51- wrong about BRCA1: develop breast cancer in men

52- wrong combination: beta-naphthylamine-renal cell carcinoma

53- RNA virus induced cancer: T cell lymphoma/leukemia

54- wrong statement about Burkitt lymphoma in immunocompetent patient: expr of LMP1

55- non-viral cancer: MALToma

56- cancer cachexia: result from the action of soluble factor (cytokines)

57- hypercalcemia: PTHrP by squamous cell carcinoma

58- grade 1: well-differentiated

59- staging doesn't depend on: amount of necrosis