

TEST PATHOLOGY

MCQ RENAL SYSTEM.

Time 30 min

- 1- A 50 years old male has a history of 35 years of diabetes mellitus. During this time, He has derranged HBA1c values. He is having off and on diarrhea and difficulty in urination. These problems are most likely to originate from which of the following mechanisms of cellular injury
- a- Apoptosis
  - b- Coagulative necrosis
  - c- Hyaline deposition
  - d- Leukocytic infiltration
  - e- Non enzymatic glycosylation

- 2- A 68 years old man has experienced increasing malaise for 3 years. Physical examination shows no remarkable finding. Laboratory findings include a serum creatinine level of 4.9mg/dl and urea nitrogen level of 45mg/dl. Abdominal CT scan shows bilaterally enlarged cystic kidneys. DNA analysis shows polycystin 1 gene mutation. Which of the following lesions is most likely complication of this man's disease.

- a- Multinodular goiter
- b- Islet cell hyperplasia
- c- Adrenal atrophy
- d- Parathyroid hyperplasia
- e- Pitutary microadenoma

- 3- Which of the following is the most likely cause of the clinical combination of generalized edema, hypoalbuminemia, hypercholesterolaemia in an adult whose urinalysis demonstrates marked proteinuria with fatty casts and oval fat bodies.

- 1- Nephritic syndrome
- 2- Nephrotic syndrome
- 3- Acute renal failure
- 4- Renal tubular defects
- 5- Urinary tract infection.

- 4- Histological examination of a section of kidney reveals patchy necrosis of the epithelial cells of both the proximal and distal tubules with flattening of the epithelial cells, rupture of membrane and interstitial edema. Acute inflammatory cells are seen. Which of the following is the most likely diagnosis.

- a- Acute pyelonephritis
- b- Acute tubular necrosis
- c- Chronic glomerulonephritis



- (SS)
- d- Chronic pyelonephritis
  - e- Diffuse cortical necrosis.
5. Predisposing factor for carcinoma bladder include
- a- Diabetes
  - b- Hypertension
  - c- Smoking
  - d- Obesity
  - e- Hypercholesteremia

6- Acute nephritic syndrome is characterized by

- a- Proteinuria
- b- Hematuria
- c- Edema
- d- Hypertension
- e- Hypoproteinaemia

7- A 6 year old boy presents with fever, abdominal mass which has grown rapidly over the last four months accompanied by weight loss. Ultrasound confirms a solid space occupying lesion in kidney. The diagnosis is

- a- Renal cell carcinoma
- b- Transitional cell carcinoma
- c- Squamous cell carcinoma of pelvis
- d- Wilms tumour
- e- Hydronephrosis.

8- The most sensitive test for renal failure is

- a- Serum sodium
- b- Serum potassium
- c- Serum urea
- d- Serum creatinine
- e- Serum clearance.

9- Electron microscopy showing prominent deposits between podocytes and the basement membrane of the glomerular capillaries are related to infection with.

- a- Escherichia
- b- Klebsella
- c- Neisseria
- d- Pseudomonas
- e- Streptococcus.

10 - A 3 year old girl presents with generalized edema shortly after recovery from an upper respiratory infection. Lab studies reveal marked albuminuria, hypoalbuminemia and hyperlipidemia. It responded to steroid therapy.

- a- focal segmental glomerulonephritis



- b- Membranous glomerulonephritis
- c- Minimal change disease
- d- Post streptococcal glomerulonephritis
- e- Rapidly progressive glomerulonephritis.

11 Which of the following conditions probably is the most common cause of recurrent urinary tract infection in males

- a- Chronic prostatitis      Chronic bacterial prostatitis
- b- Kidney stones
- c- Tuberculous cystitis
- d- Malakoplakia
- e- Immunodeficiency disorder

12 A 60 year old man develops a renal mass, the mass reveals vessels, fat and muscle. What is the diagnosis.

- a- RCC
- b- Wilms tumour
- c- Chromophobe tumour
- d- Oncocytoma
- e- Angiomyolipoma

13 A 78 year old man with long standing prostatic hypertrophy dies of a stroke. At autopsy, both kidneys demonstrate coarse asymmetric renal corticomedullary scarring, deformity of the renal pelvis and calyces, interstitial fibrosis, and atrophic tubules containing proteinaceous casts. These findings are suggestive of

- a- Berger disease
- b- Chronic analgesic nephritis
- c- Chronic pyelonephritis
- d- Membranoproliferative glomerulonephritis
- e- Renal papillary necrosis.

14 An autopsy enormously enlarged kidneys are seen with multiple clear fluid filled cysts in cortex and medulla. What is the well known association is seen as well in this condition.

- a- Berry aneurysm of circle of willis
- b- Nephrotic syndrome
- c- Polycystic ovaries
- d- Polycythemia vera
- e- X-linked inheritance.



15- A 50 year old woman with history of type 2 diabetes mellitus presents with proteinuria, hypoalbuminemia, edema and hyperlipidemia. She has not monitored blood glucose levels. Diabetic nephropathy is diagnosed. What is the classic morphological finding to diabetic nephropathy.

- a- Crescentic GN
- b- Intra and inter membranous immune complex deposits
- c- Nodular accumulation of mesangial matrix on light microscopy
- d- Sclerosis within capillary tufts that involve some glomeruli and only parts of affected glomeruli
- e- Wire loop abnormalities from thickening and immune complex deposition.

16- A 45 year old man comes to emergency department in severe pain in right flank that extends right groin. The pain is sharp and severe. An abdominal ultrasound reveals ureteric stone. What is the most likely composition of stone in this patient

- a- Uric acid stone
- b- Ammonium magnesium
- c- Cysteine
- d- Calcium
- e- Phosphate

17- over the past 72 hours, a 44 year old man has experienced headache, nausea, and vomiting. On physical examination the blood pressure is 270/158 mm of Hg. and there is bilateral papilloedema. Urinalysis shows proteinuria, ketoneuria, hematuria, no glucose and no ketones. which of the following lesion is present in this patient.

- a- Papillary necrosis
- b- Acute infarction
- c- Necrotizing arteriolitis
- d- Acute tubular necrosis
- e- Acute pyelonephritis

malignant hypertension

18- In most cases of non-obstructive chronic pyelonephritis bacteria reach the kidney via

- a) The blood stream
- b) The lymphatics
- c) Batson's plexus
- d) Vesicoureteral reflux
- e) Arteriovenous shunts

19- Lipoid nephrosis of the kidney characteristically produces ultrastructural changes in which of the following renal glomerular elements

- a) Endothellum
- b) Epithellum
- c) Mesangium
- d) Blood vessels
- e) Basement membrane



20- Which of the following features is characteristic of Wilm's tumour

- a): Peak incidence is about 10 years of age
- b): Bright orange color on gross examination
- c): The presence of both epithelial and stromal elements on microscopic examination
- d): Frequent metastasis to brain
- e): Lack of response to chemotherapy

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In patient with malignant hypertension, the afferent arterioles in the kidney may show which of the following changes

- a): Hyaline change
- b): Cholesterol deposition
- c): Hyperplastic arteriosclerosis
- d): Granuloma formation
- e): Aneurysm formation

22- Which of the following is an example of pre renal cause of oliguria

- a): Acute glomerulonephritis
- b): Bladder tumor
- c): Prostatic hyperplasia
- d): Shock
- e): Transplant rejection

23- Schistosomiasis of the urinary bladder is responsible in the following type of bladder tumour

- a): Transitional cell carcinoma
- b): Adeno-carcinoma
- c): Adeno-acanthoma
- d): Squamous cell carcinoma
- e): Undifferentiated carcinoma

24- A 45 years old man experienced painless hematuria, flank pain and a mass. Microscopy revealed sheets of clear cells with central hyperchromatic nuclei.

Which of the following is the most common etiological factor for this disease.

- a- Alcohol
- b- Diabetes
- c- Smoking
- d- Schistosomiasis
- e- Benzene

25- WT-1 mutation is associated with

- a- Clear cell carcinoma
- b- Papillary carcinoma
- c- Chromophobe carcinoma
- d- Adenoma
- e- Wilms Tumour.

26- A 20 years old female presented with nephrotic syndrome. she didn't respond to corticosteroid therapy. Biopsy reveals diffuse thickening of basement membrane and producing spike and dome appearance.



What is the most likely site of deposition of immunoglobulin

- a- Subendothelial
- b- Subepithelial
- c- Mesangial
- d- Subepithelial and subendothelial
- e- Sub epithelial and basement membrane.

27- A 25 years old female presented with hematuria, periorbital edema, hypertension, and hemoptysis. Crescent formation is seen. Immunofluorescence microscopy reveals antiglomerular basement membrane disease. what is the most likely syndrome in this case.

- a- Nephrotic Syndrome
- b- Good Pasture syndrome
- c- Gullian Bar Syndrome
- d- Von Hippel Lindau syndrome
- e- Dany Dash syndrome.

28- A 60 years old female died of a tumour that had invaded the renal vein and entered inferior vena cava. Which of the following is the characteristic association of this neoplasm.

- a- Adrenal origin
- b- Hematuria
- c- Hypocalcemia
- d- Tumor cells in urine
- e- Bilateral symmetrical involvement.

29- A 22 year old female presented with malar rash, photosensitivity, arthralgia. Which of the following findings have greater significance.

- a- Pleuritis
- b- Verrucae in heart valves
- c- Skin infection
- d- Glomerular subendothelial immune complex deposition
- e- Splenic fibrosis.

30- A 28 years old female presents with Suprapubic pain, urinary frequency, dysuria, and hematuria. Urine examination shows pus cells.

What is the most likely diagnosis.

- a- Fanconi anemia
- b- Cystitis
- c- Acute Pyelonephritis
- d- Chronic Pyelonephritis
- e- Nephrocalcinosis.