

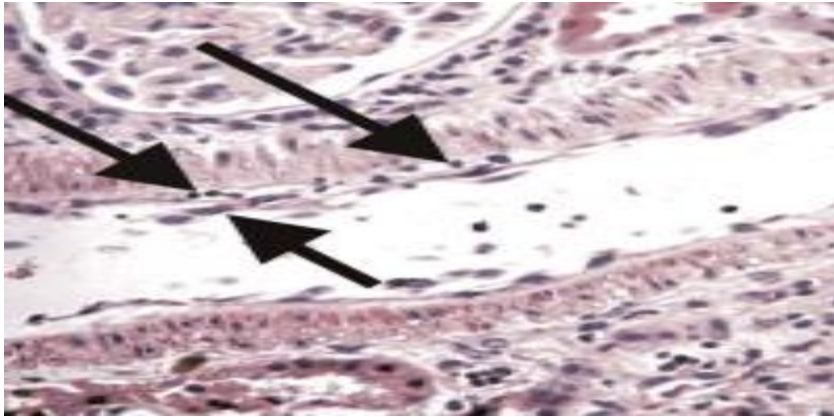
**ISOT-RENAL TRANSPLANT PATHOLOGY COURSE-2024-EXIT EXAM
QUESTION PAPER: 31/08/2024 .**

Total marks:30

1. Which of the following criteria is removed from Active Antibody Rejection in Banff 2022 updates?

- a. Glomerulitis and or peritubular capillaritis
- b. Endarteritis
- c. Acute tubular injury
- d. Acute thrombotic microangiopathy, in the absence of any other cause.

2. Grade the following endarteritis:



- a.v0
- b.v1
- c.v2
- d.v3.

3. Following features are seen in sclerosing transplant arteriopathy, except:

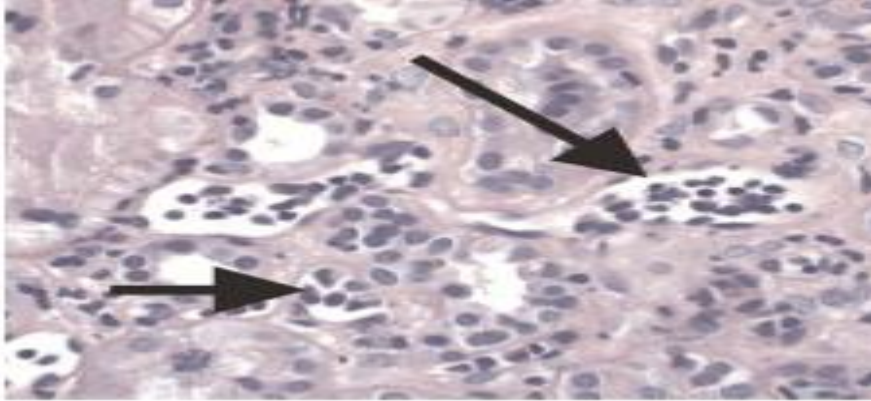
- a. Intimal fibrosis
- b. Elastosis
- c. Mononuclear cell infiltrate in the fibrotic intima
- d. None of the above.

4. Following is not a feature of CNI toxicity:

- a. Tubulitis

- b. Arteriolar hyalinosis
- c. Collapsing glomerulopathy
- d. Isometric vacuolization of tubules.

5. Identify the entity .

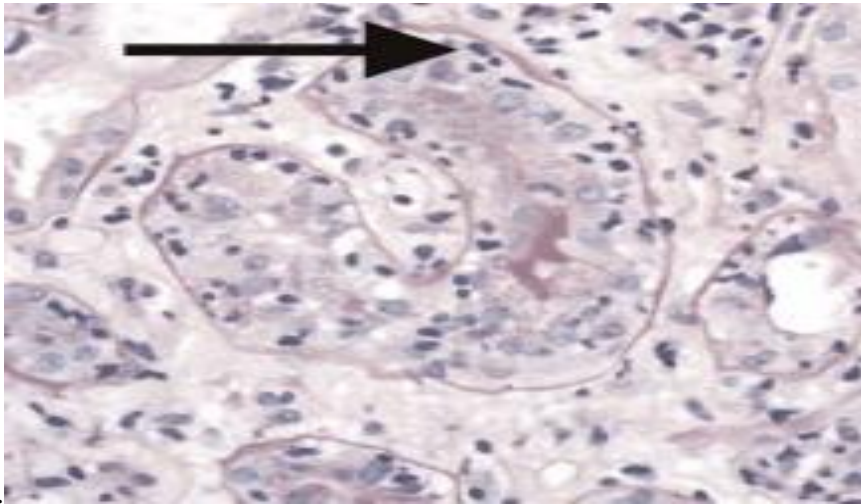


- a. Tubulitis
- b. Endarteritis
- c. Glomerulitis
- d. Peritubular capillaritis.

6. which of the following is not seen on light microscopy?

- a. Transplant glomerulopathy ,cg 1a
- b. Transplant glomerulopathy ,cg 1b
- c. Peritubular capillary basement membrane multilayering
- d. a+c.

7. 54-year-old male, renal transplant recipient :3 months ago, donor: mother, patient is on triple immunosuppression, serum creatinine:2.5mg/dl, Biopsy done. C4d is negative .Identify and grade the rejection.



- a. Active antibody mediated rejection
- b. Acute T cell mediated rejection, Banff grade IA
- c. Acute T-cell mediated rejection, Banff grade I B
- d. Acute T-cell mediated rejection, banff grade IIA.

8. All of the following are graded when present at least 10% ,except ONE?

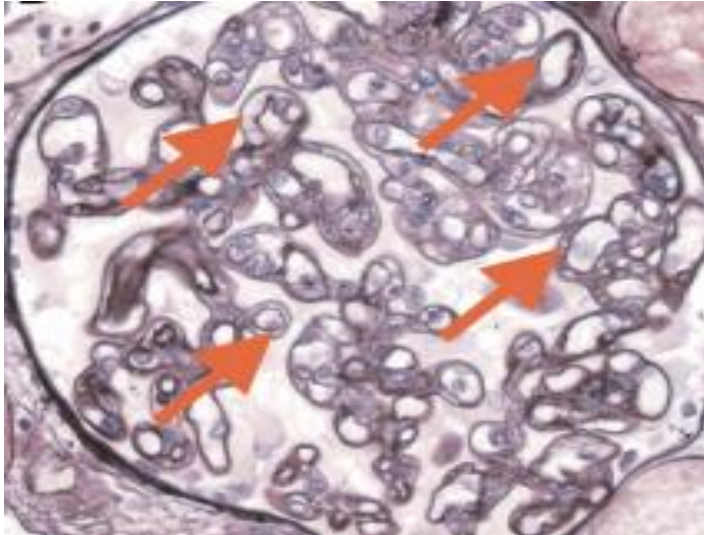
- a. Interstitial inflammation
- b. Glomerulitis
- c. Peritubular capillaritis
- d. Total inflammation.

9. All of the following are false, except:

- a. Interstitial fibrosis grading cut -off starts when present in up to 6% of cortical area.
- b. Interstitial fibrosis grading cut -off starts when present in up to 10% of cortical area.

- c. Interstitial fibrosis grading cut-off starts when present in up to 5% of cortical area.
- d. Interstitial fibrosis grading cut-off starts when present in up to 25% of cortical area.

10. Grade the following entity.

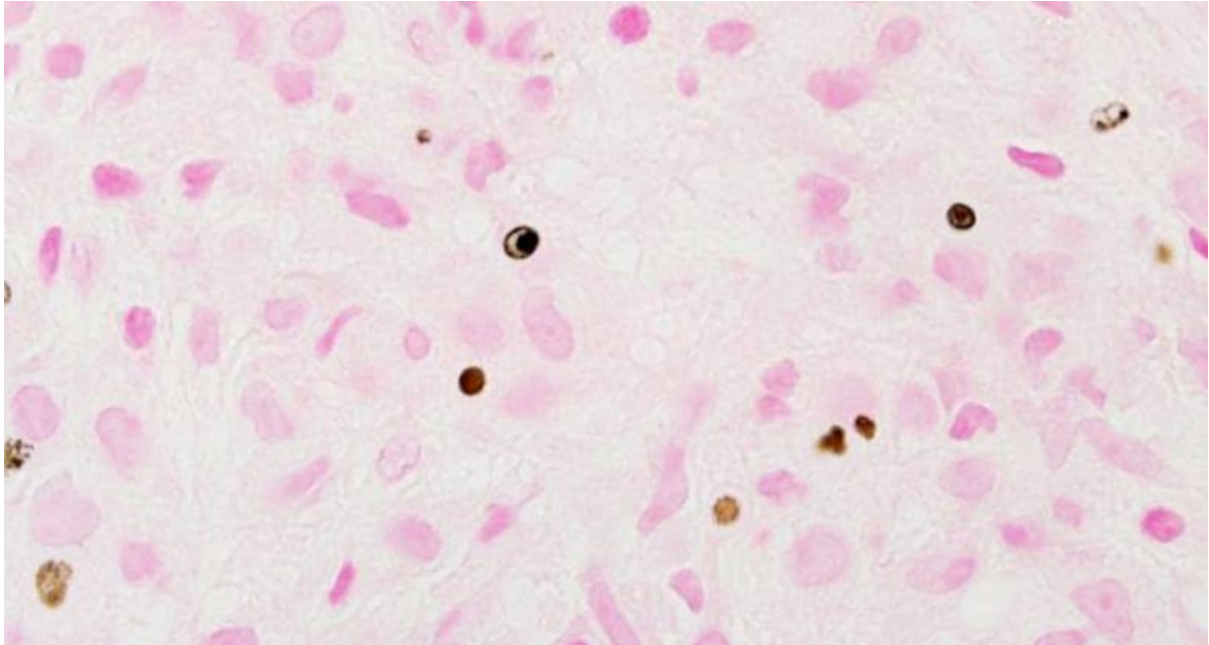


- a. cg1a
- b. cg1b
- c. cg2
- d. cg3.

11. What is the threshold for microvascular inflammation (MVI) according to Banff 2022?

- a. $g \geq 2$
- b. $ptc \geq 2$
- c. $g + ptc \geq 2$
- d. $g + ptc \geq 1$.

12. Stain: Von Kossa Stain: This is seen in which condition?

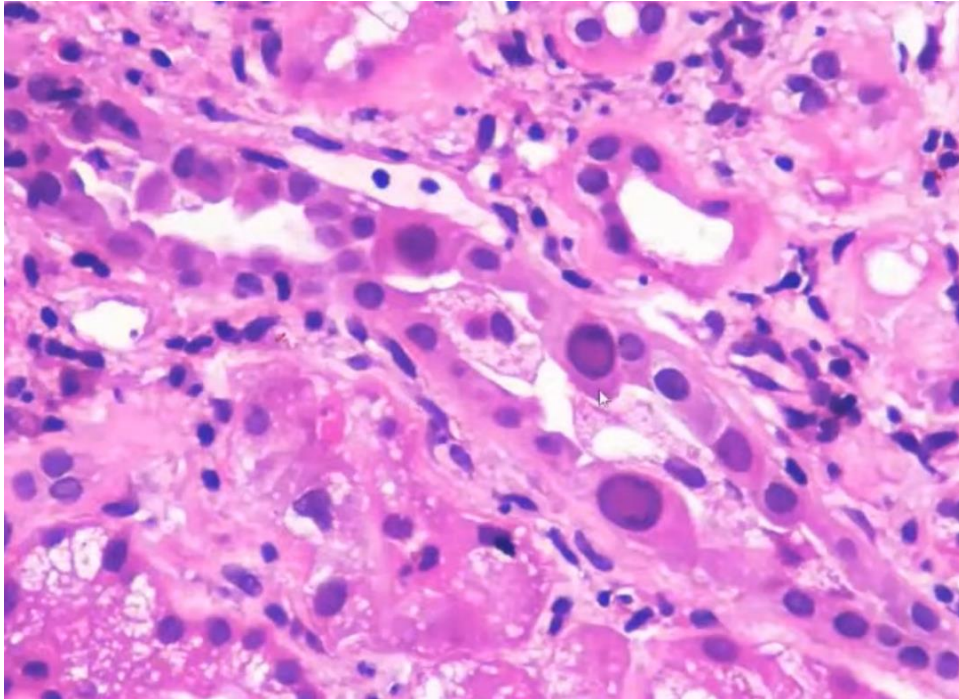


- a. Coccidioidomycosis
- b. Cryptococcosis
- c. Tuberculosis
- d. Malakoplakia

13. What is the criteria for Chronic active T cell mediated rejection, type IA?

- a. $t \geq 2$ / t -IFTA ≥ 2 , i-FTA ≥ 2 , $t_i \geq 1$
- b. $t \geq 3$ / t -IFTA ≥ 3 , i-FTA ≥ 2 , $t_i \geq 2$
- c. $t \geq 2$ / t -IFTA ≥ 2 , i-FTA ≥ 2 , $t_i \geq 2$
- d. $t \geq 1$ / t -IFTA ≥ 1 , i-FTA ≥ 2 , $t_i \geq 2$

14. Identify the following and which immunohistochemical stain is required to confirm the same?

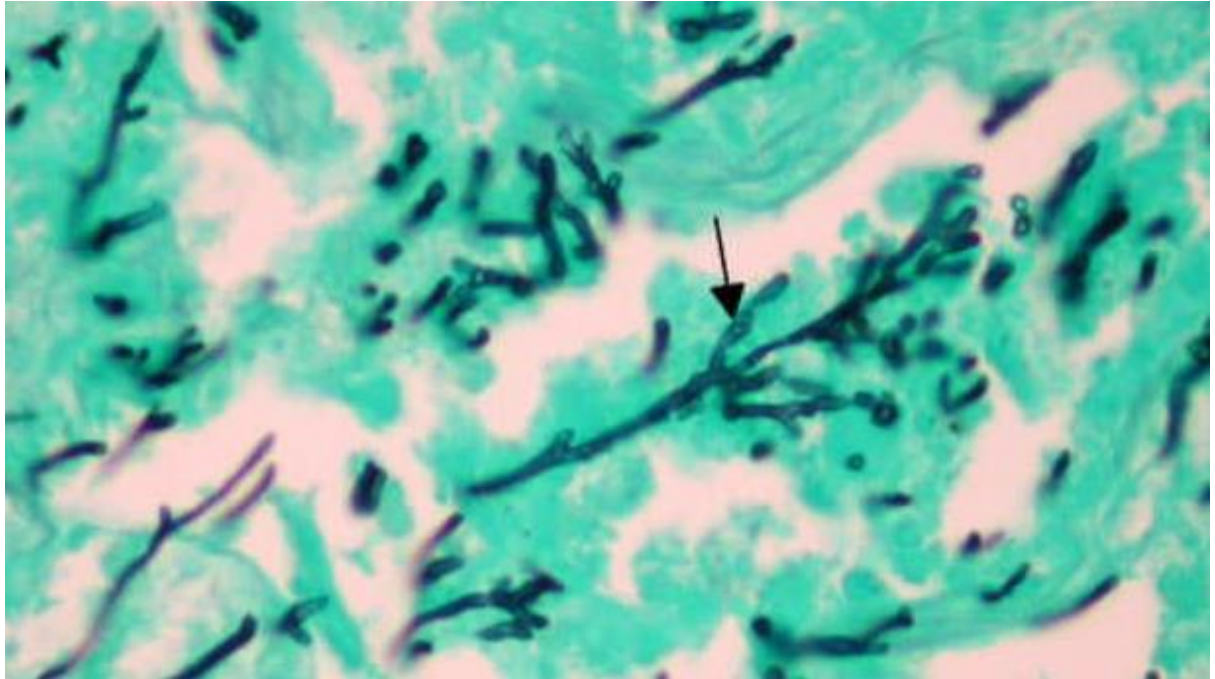


- a. CMV
- b. SV40
- c. Adenovirus
- d. C4d

15. Thrombotic microangiopathy (TMA) is seen in.?

- A . Antibody mediated rejection
- b. CNI toxicity
- c. Recurrence of HUS/TMA
- d. All of the above.

16. Identify the stain and entity.

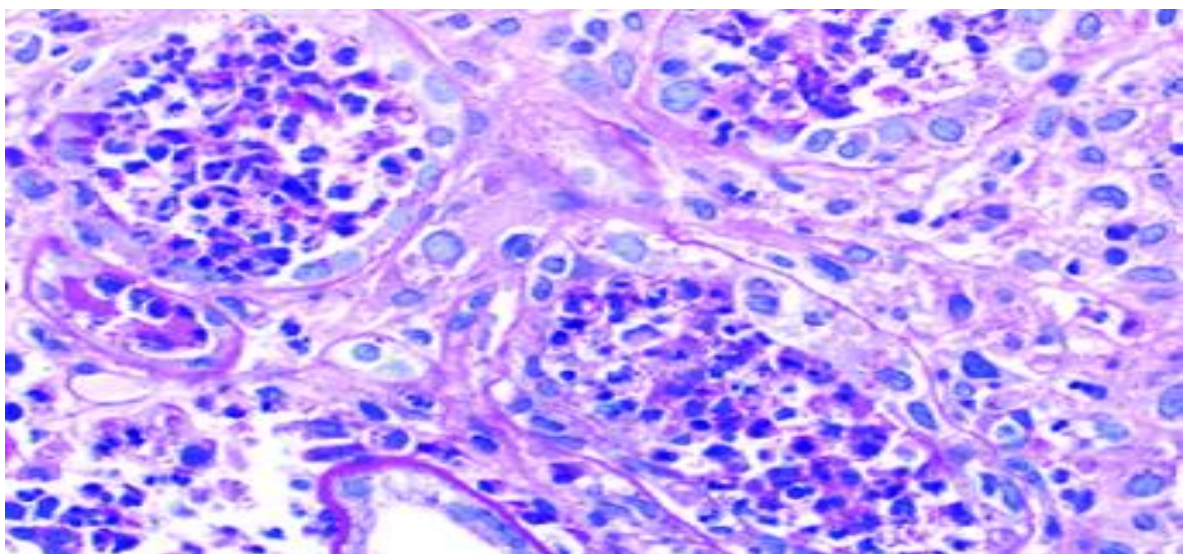
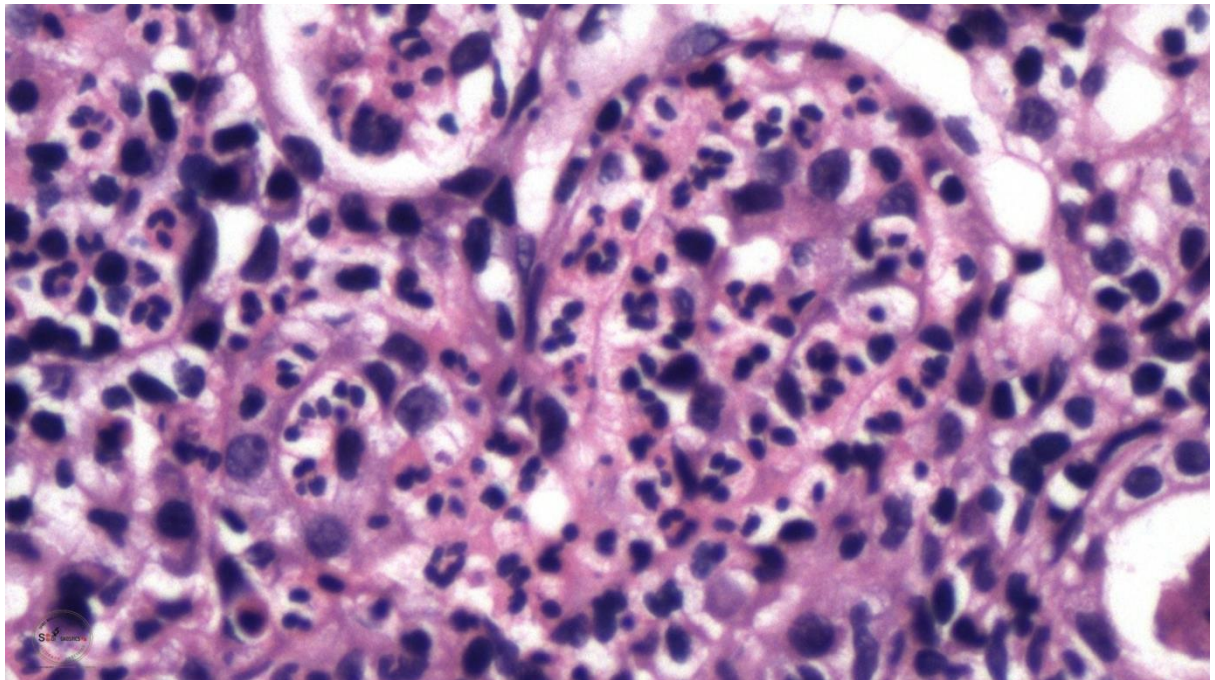


- a. Silver stain and Mucormycosis
- b. GMS stain and Aspergillosis
- c. MT stain and Aspergillosis
- d. GMS stain and Mucormycosis.

17. The criteria for peritubular capillary basement membrane multilayering on Electron microscopy to diagnose chronic/ active antibody mediated rejection are:

- a. ≥ 8 layers in one capillary and ≥ 7 layers in two others.
- b. ≥ 9 layers in one capillary and ≥ 5 layers in two others
- c. ≥ 7 layers in one capillary and ≥ 5 layers in two others
- d. ≥ 10 layers in one capillary and ≥ 5 layers in two others.

18.52 year old male, diabetic, hypertensive, ESRD due to unknown etiology, on dialysis for 3 months, underwent Kidney transplant a month ago, wife as donor, HLA match:2/6. Induction :ATG, Maintenance: triple immunosuppression. Uneventful Perioperative and post operative course. Nadir Creatinine 0.9 reached at the end of 1 week. DJ Stent removed after 2 weeks,now one month post transplant patient came with fever, graft tenderness, serum creatinine:3 mg/dl.CUE:protein:1+,RBCs:2 to 3/HPF, WBCs:45 to 50/HPF. Under Antibiotic cover – Graft biopsy was done.



- a. Acute pyelonephritis
- b. Antibody mediated rejection

- c. CNI toxicity
- d. Acute T-cell mediated rejection

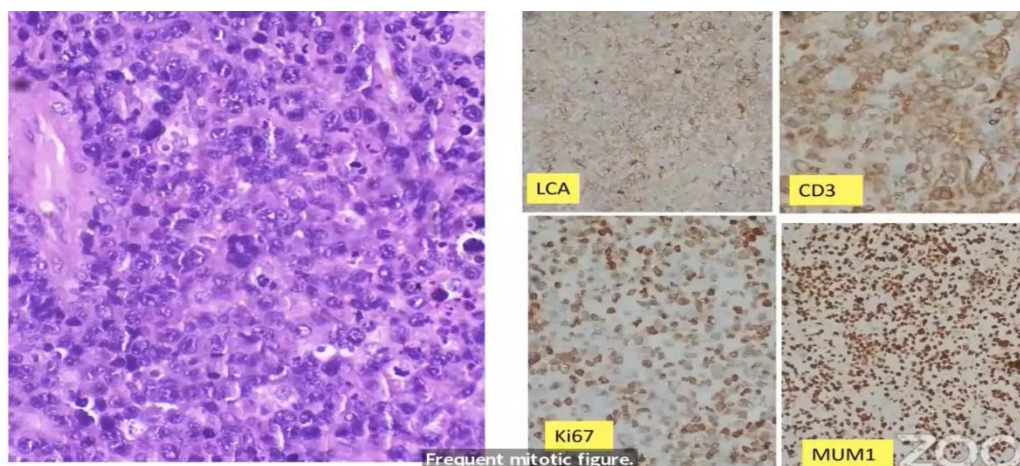
19. All of the following are false, except ONE:

- a. C4d staining can be done by IHC and or IF
- b. C4d staining can be done by IHC only
- c. C4d staining can be done by IF only
- d. None of the above.

20. What is specimen adequacy Banff criteria for a renal biopsy?

- a. 06 or more glomeruli and at least two arteries
- b. 8 or more glomeruli and at least two arteries
- c. 9 or more glomeruli and at least two arteries
- d. 10 or more glomeruli and at least two arteries.

21. 45 years old male, 10 years post renal transplant, native kidney disease: CIN, patient is on triple drug immunosuppression, c/o fever and malaise. Graft biopsy done. Biopsy shows :



- a. Adenovirus nephritis
- b. CMV Nephritis
- c. Post transplant lymphoproliferative disorder
- d. None of the above.

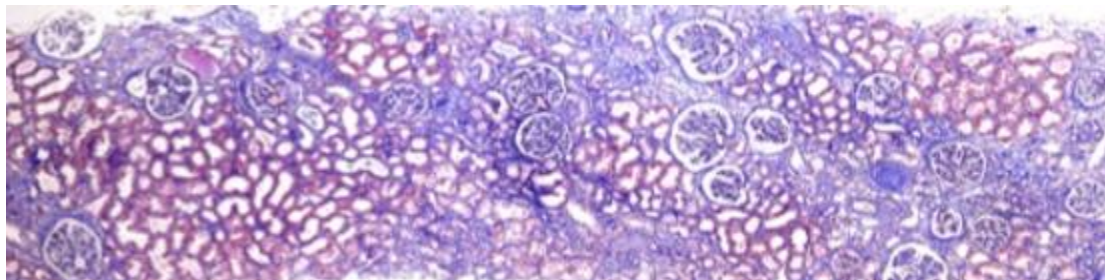
22. Accommodation shows following histopathological features except, ONE:

- a. Glomerulitis
- b. C4d positivity
- c. Acute Tubular injury
- d. b+c.

23. All are true regarding suspicious (borderline) for Acute T-cell mediated rejection, except ONE:

- a. i1, t1
- b. i2, t1
- c. i3, t2
- d. i3, t1.

24. 50 year male ,2 years post live related renal transplant ,patient is on triple drug immunosuppression,serum creatinine 2.5 mg/dl. Which is the stain and the pathology suggests :



- a. MT stain & T-cell mediated rejection
- b. PAS stain & Early CNI toxicity
- c. H&E stain & Antibody mediated rejection
- d. MT stain & Late CNI toxicity.

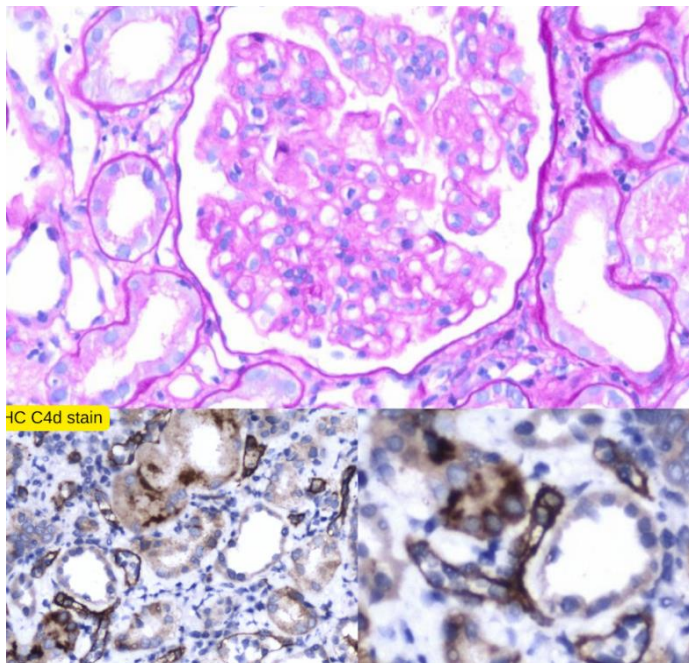
25. Glomerular basement membrane thickening and /duplication is ideally to be commented on which stain?

- a. H& E stain and PAS stain
- b. H&E Stain & MT stain
- c. PASM & MT stain
- d. PAS stain & PASM Stain

26. Following features are seen in Acute t-cell mediated rejection , except ONE:

- a. Tubulitis
- b. C4d positivity
- c. Glomerulitis
- d. Endarteritis

27. 35 year old male , cadaver donor , 6 weeks post transplant, serum creatinine increased from 1 mg/ dl to 2 mg/ dl. Graft biopsy done which shows:



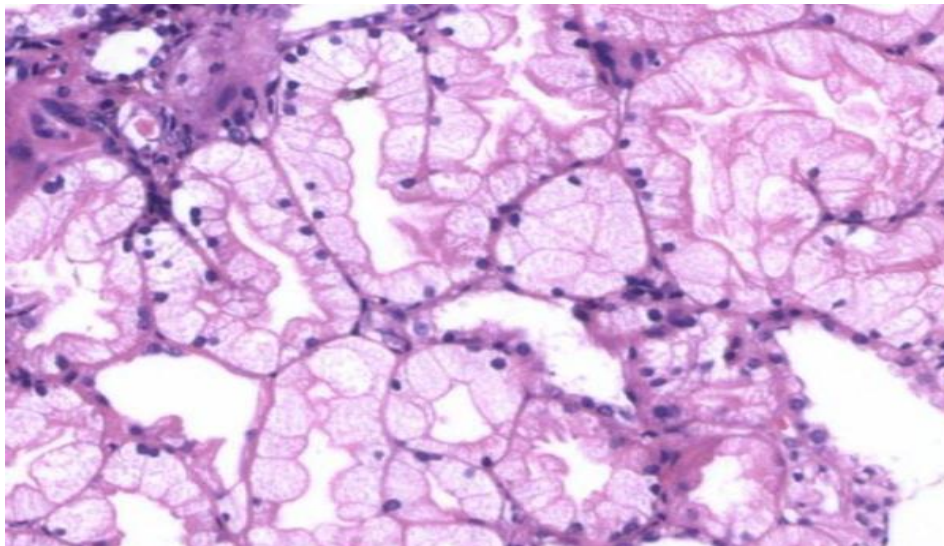
- a. Acute T-cell mediated rejection
- b. Combined acute T-cell mediated rejection & Active antibody mediated rejection
- c. Active antibody mediated rejection

d.CNI toxicity

28. Post renal transplant proteinuria is seen in :

- a. Transplant glomerulopathy
- b. Recurrent IgA Nephropathy
- c. De novo Membranous Nephropathy
- d. All of the above.

29. 40 year male ,1 month post live related renal transplant, patient is on triple drug immunosuppression, rise in creatinine from 0.8 to 1.5 mg/dl. Graft biopsy done which shows:



- a. Early CNI toxicity
- b. Hypokalemic nephropathy
- 3. Acute tubular necrosis
- d. Acute T-cell mediated rejection.

30. Banff consensus is held at every :

- a. 3 years
- b. 5 years
- c. 2 years
- d. 10 years

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