

# **Urothelial tumors**

- **Tumors in the collecting system above the bladder are relatively uncommon.**
- **These tumors are classified into :**
- **1 benign papilloma.**
- **2-papillary urothelial neoplasms of low grade**
- **3-papillary urothelial carcinoma of high grade**

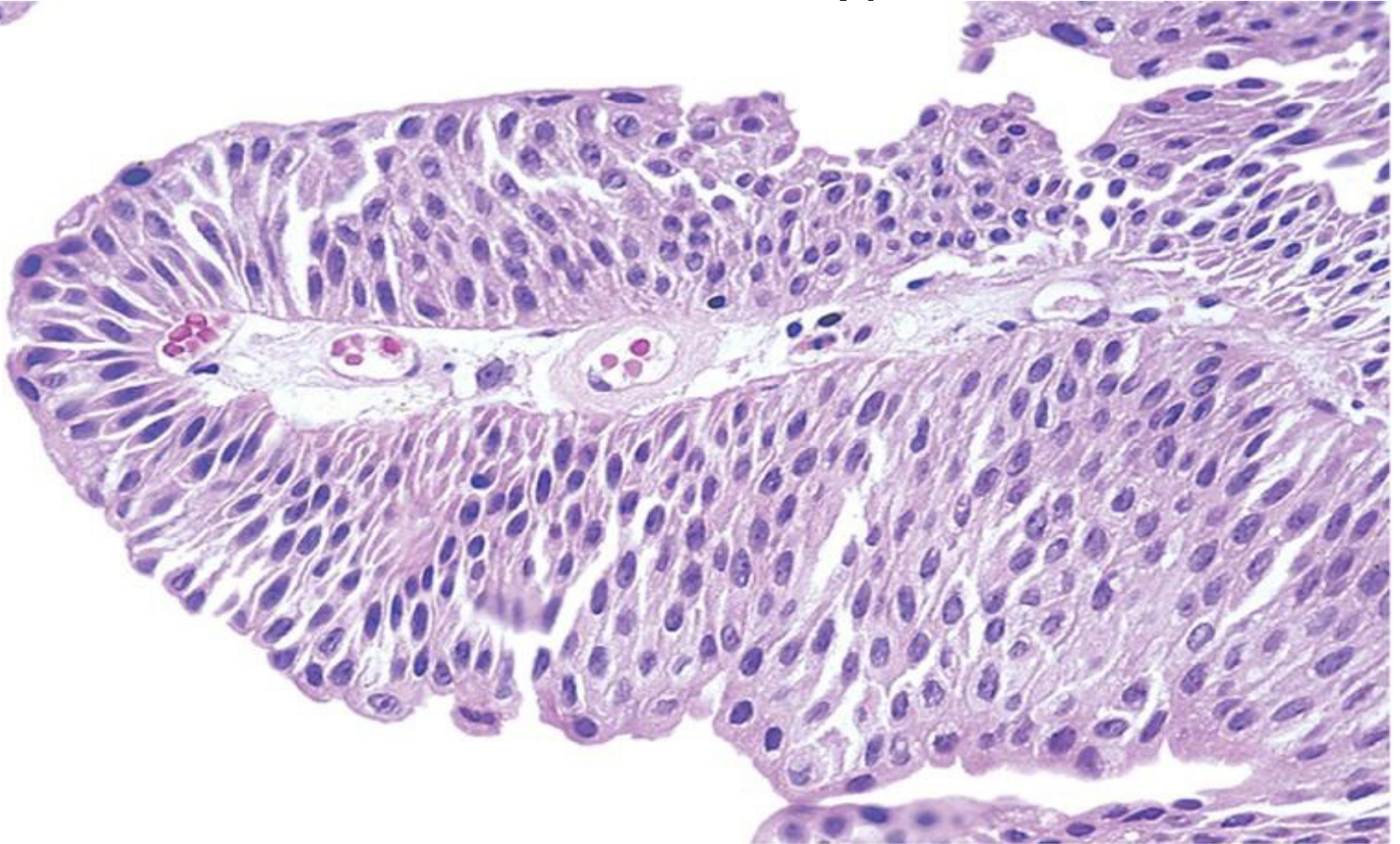
# Transitional cell carcinoma of UB



# **Urothelial (transitional) cell carcinomas**

- **Low-grade carcinomas are always papillary and are rarely invasive.**
- **they may recur after removal.**
- **The extent of invasion and spread (staging) at the time of initial diagnosis is the most important prognostic factor**

# Papillary Urothelial (transitional) carcinoma-low grade



# squamous cell carcinomas

- only 5% of bladder cancers are **squamous cell carcinomas**.
- Associated with chronic inflammation and **stone** formation, also **Schistosomiasis** infection

# *Clinical Course of bladder cancer*

- *Painless hematuria is the dominant clinical presentation of all tumors.*
- **M:F 3:1**
- **50 to 70 years.**
- **Prognosis**
- low-grade shallow lesions have good prognosis.
- High grade lesions with deep penetration of the bladder wall → 5-year survival rate is less than 20%.

- **Predisposing factors** :
- **Bladder cancer is not familial.**
- **factors implicated in the causation:**
- **1- 50 X more common in those exposed to β-naphthylamine.**
- **2-Cigarette smoking.**
- **3-Chronic cystitis.**
- **4-Schistosomiasis of the bladder.**
- **5-drugs as cyclophosphamide.**

- *Treatment:*
- transurethral resection is both diagnostic and therapeutic
- bacille Calmette-Guérin (BCG) → granulomatous reaction; triggers local immune response
- Follow-up for recurrence with periodic cystoscopy and urine cytologic studies for the rest of their lives.
- Radical cystectomy and chemotherapy for advanced cases

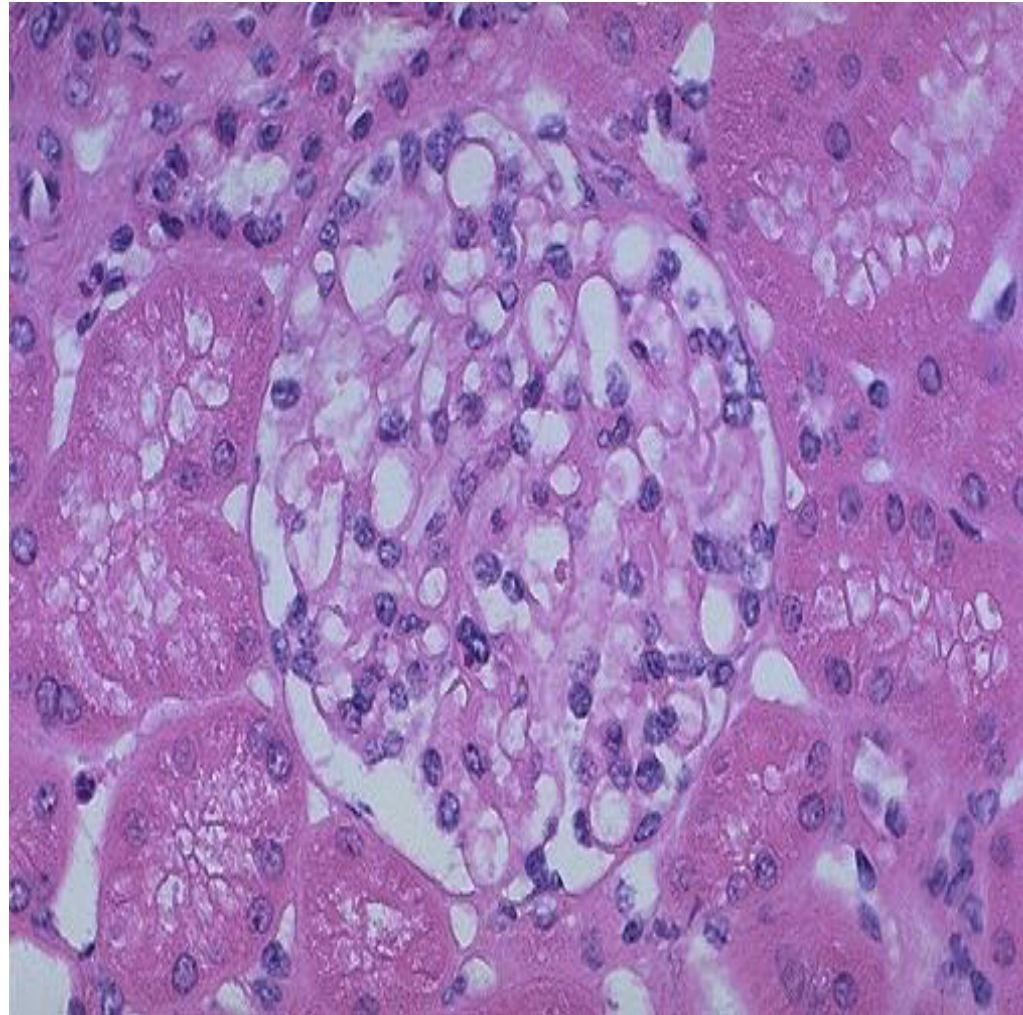




# **UROGENITAL SYSTEM**

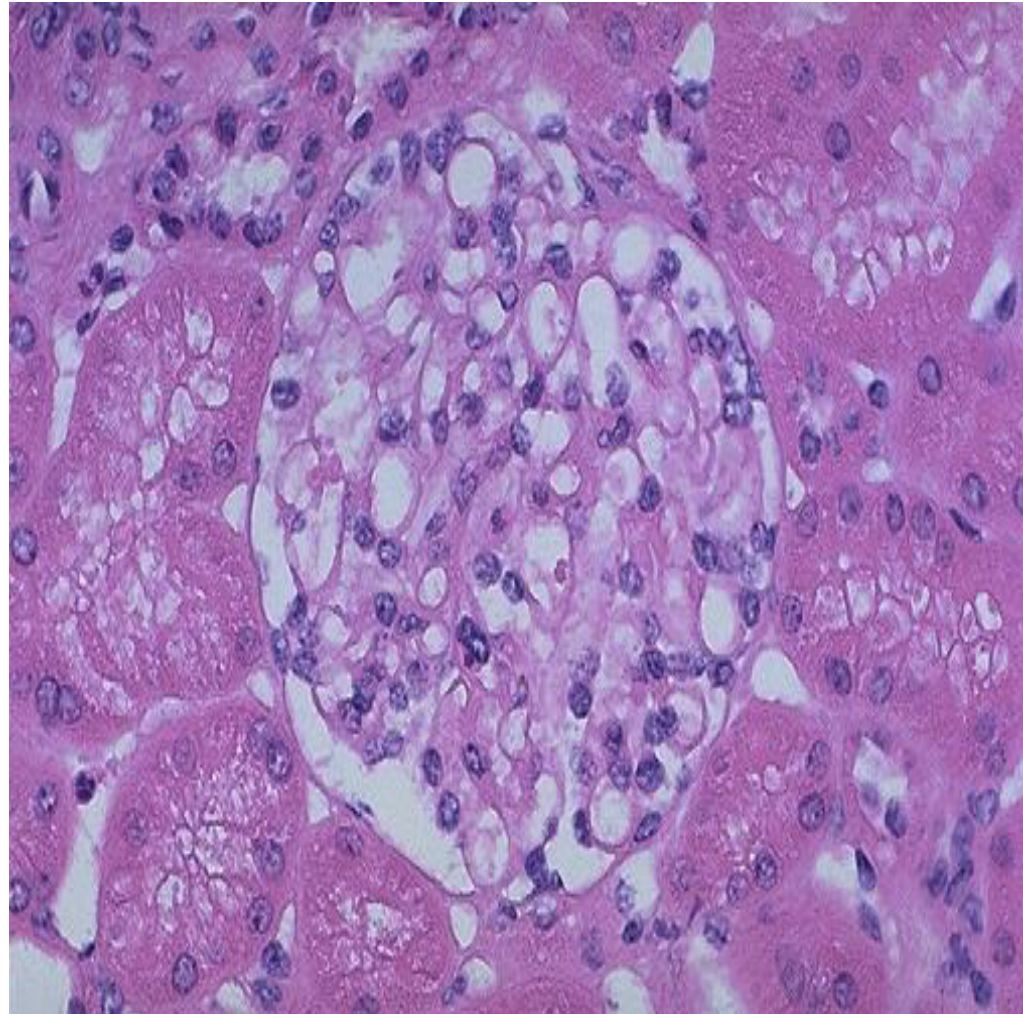
## **LAB -1**

- **Prevalence in children?**
- **LM findings?**
- **IF findings?**
- **EM findings?**

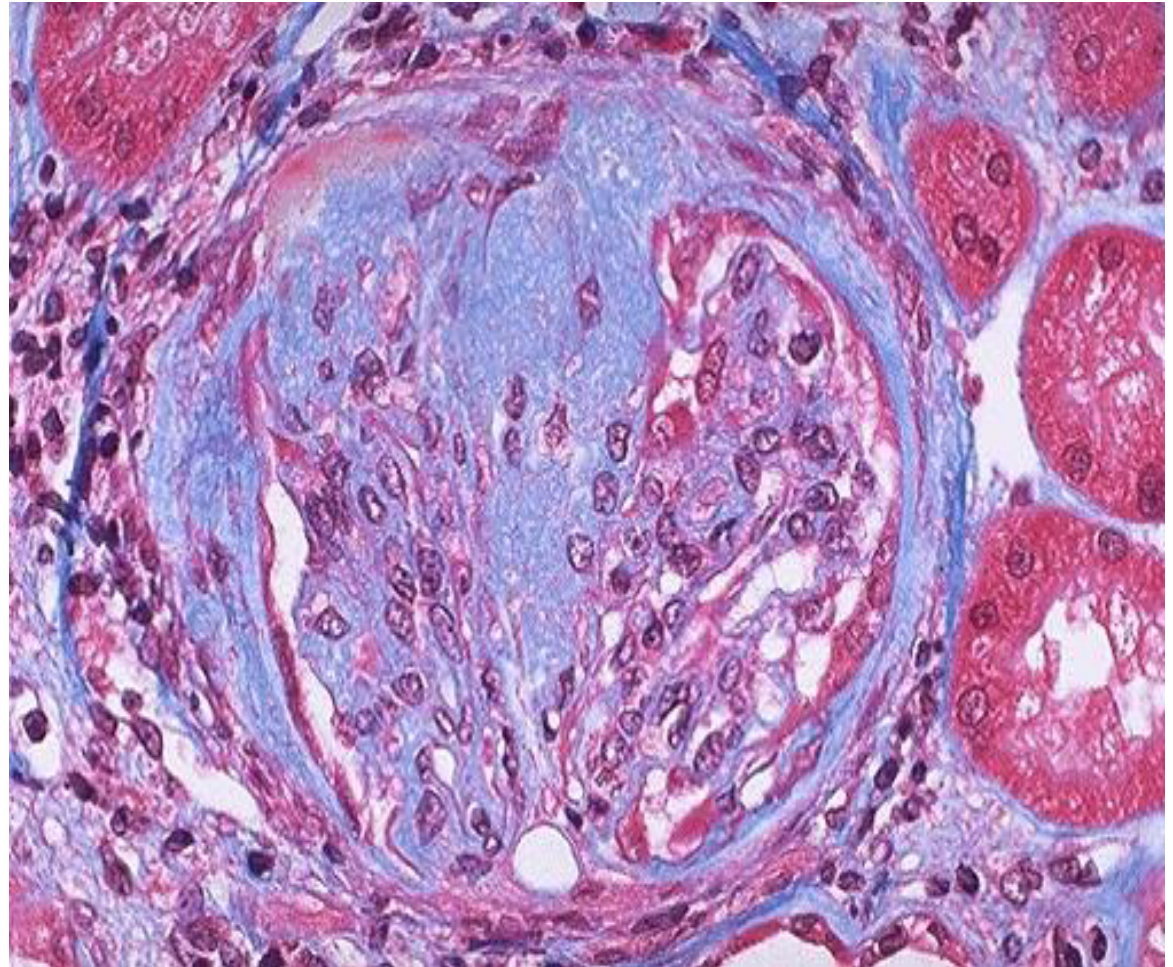


# Minimal change disease

- Prevalence in children? **M/C NS**
- LM findings? **none**
- IF findings? **none**
- EM findings?  
**Effaced podocyte foot processes**

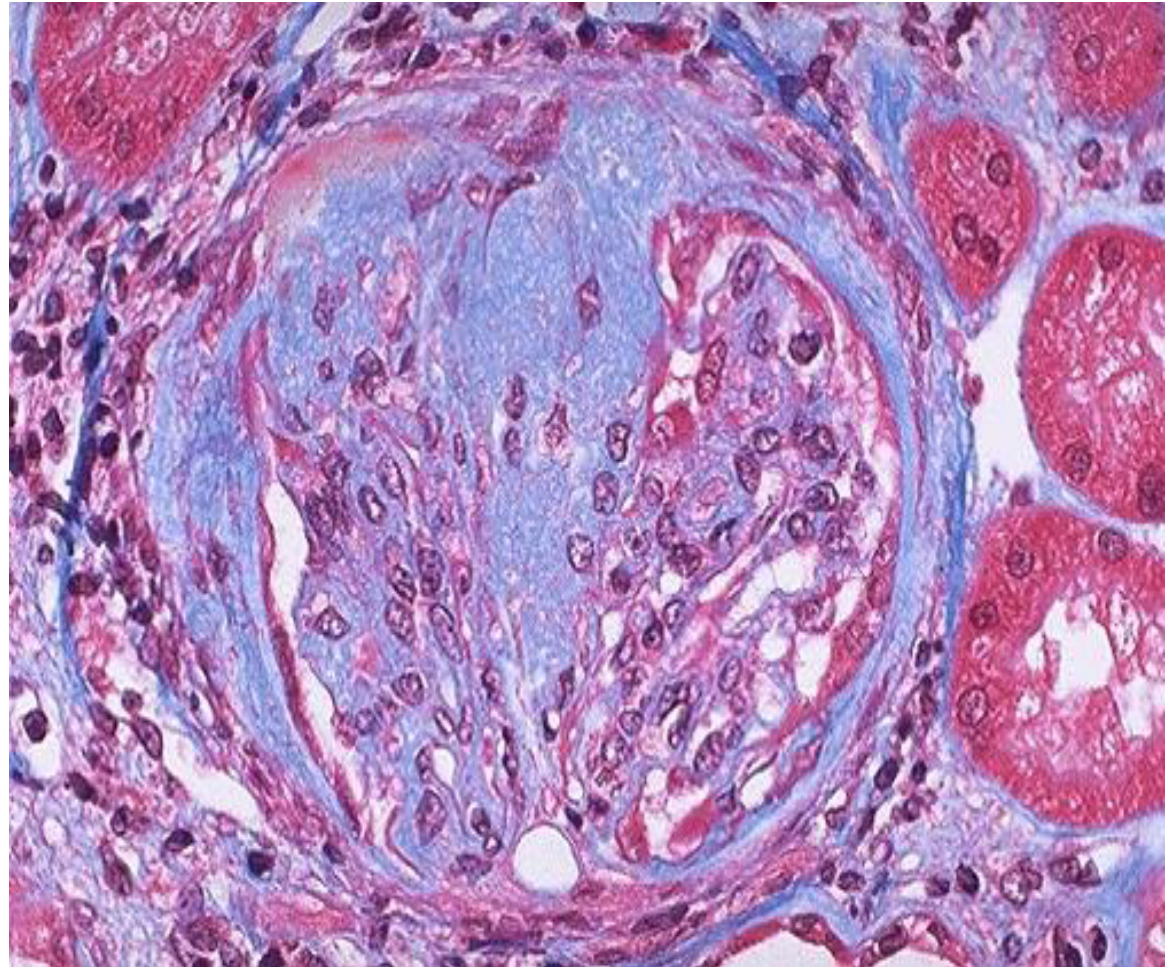


- Prevalence in adults, children?
- LM findings?
- IF findings?

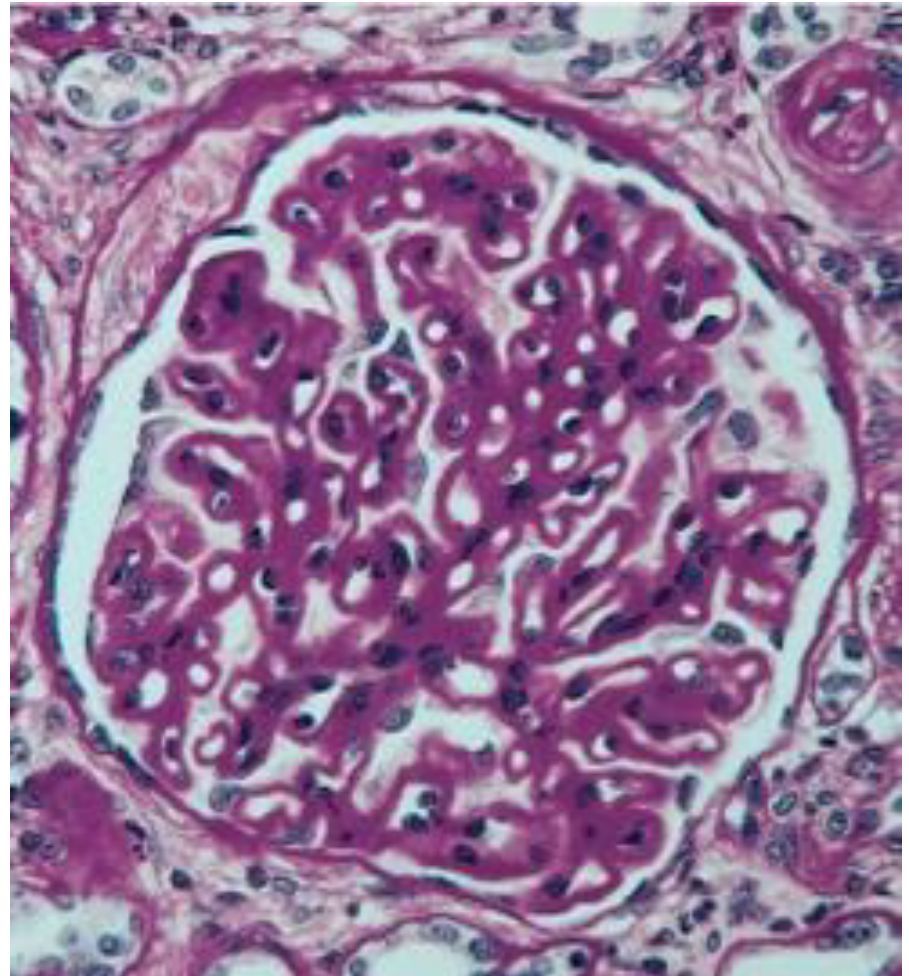


# Focal and segmental glomerulosclerosis

- Prevalence in adults? **m/c 1\* NS in adults**
- LM findings? **Segmental sclerosis affecting some of the glomeruli.**
- IF findings? **Usually negative**

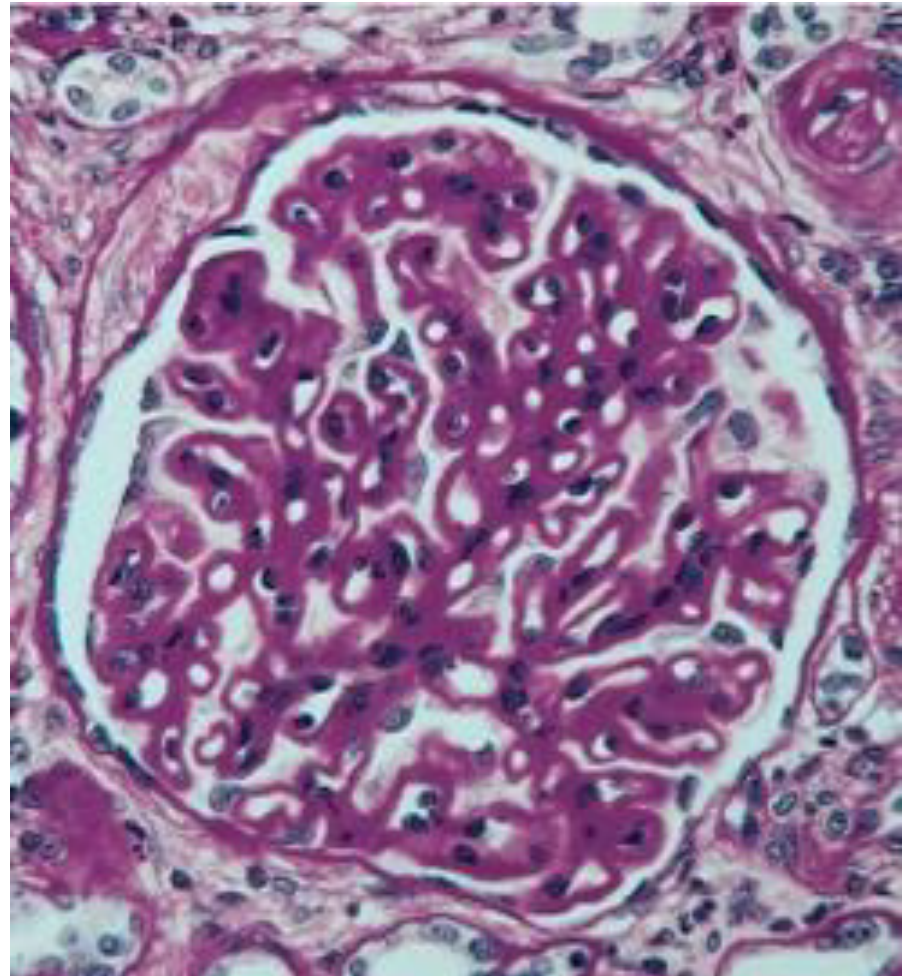


- Types?
- Causes of 2dry?

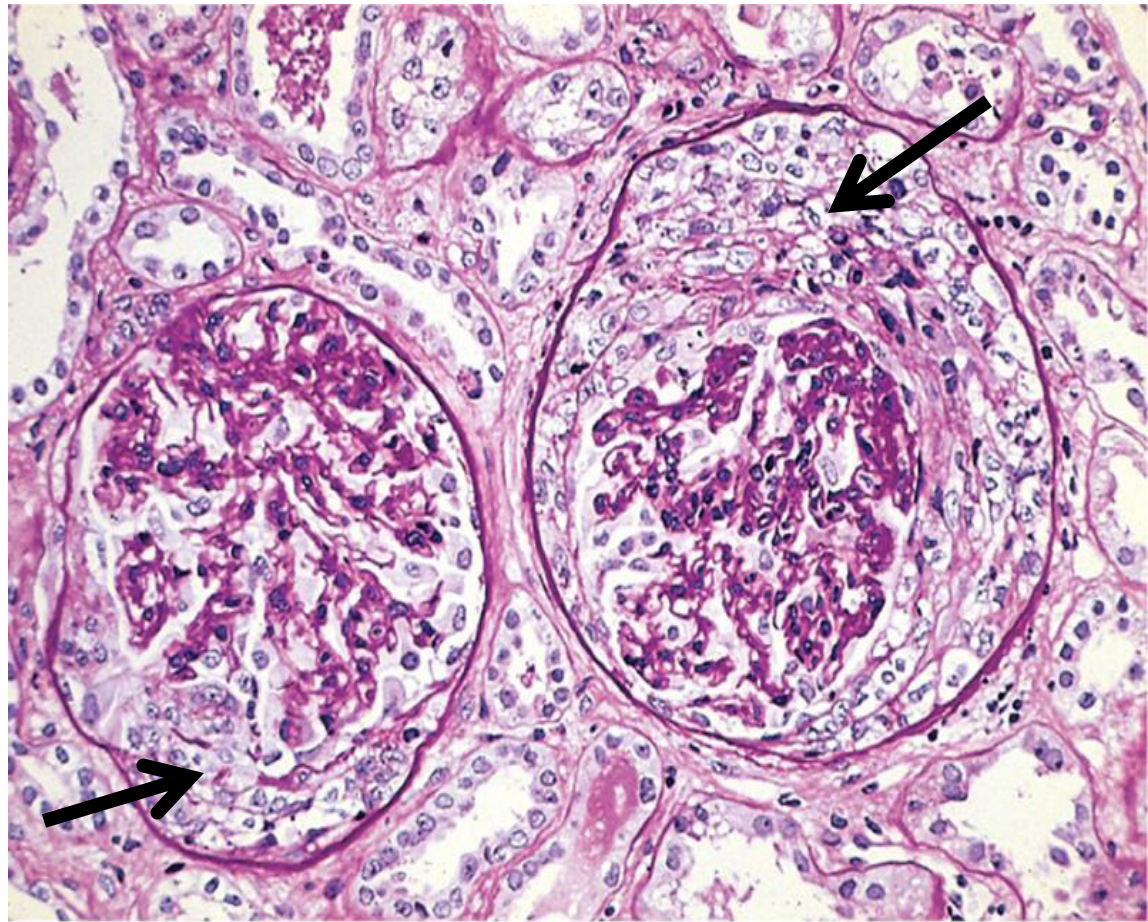


# Membranous glomerulopathy

- Types? **1ry and 2ry**
- Causes of 2ry?
- Drugs**
- **heavy metals**
- Infections**
- malignancy**



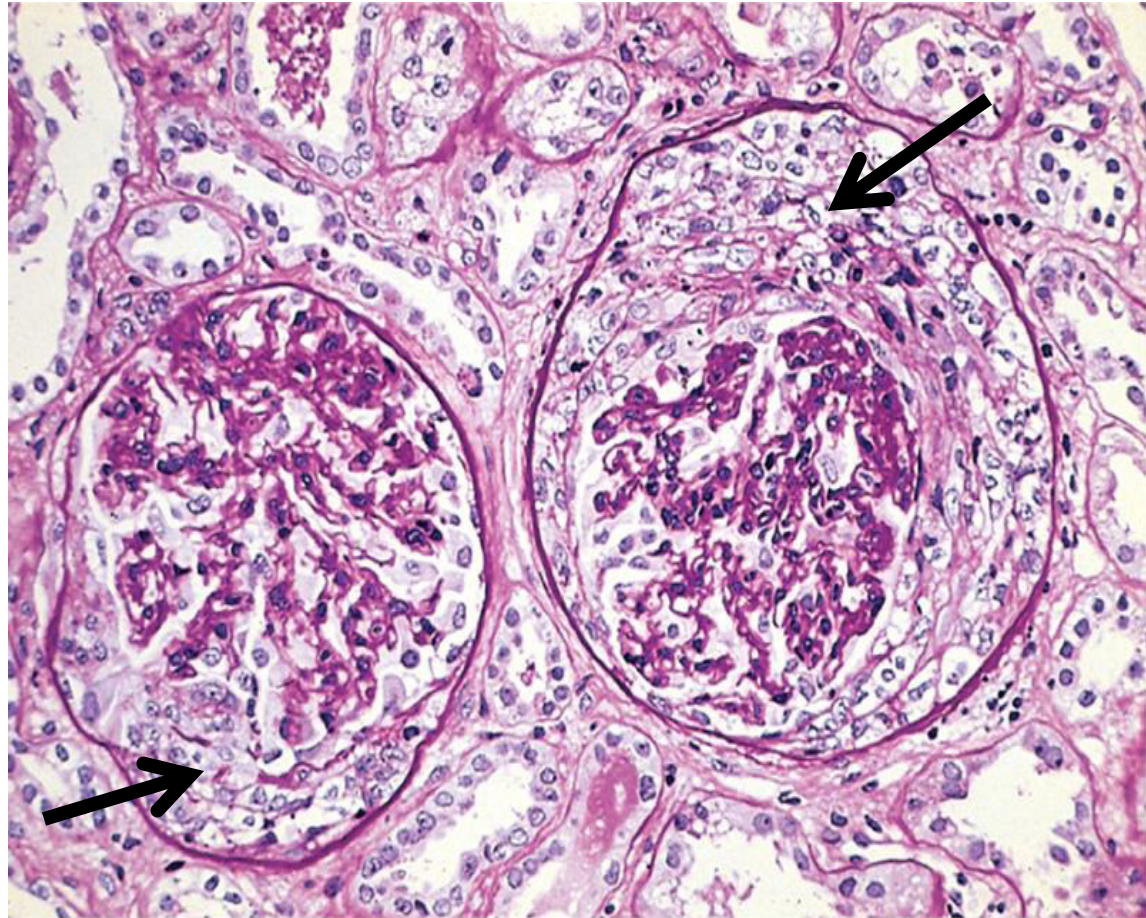
- Types?
- Characteristic IF findings?
- Outcome?





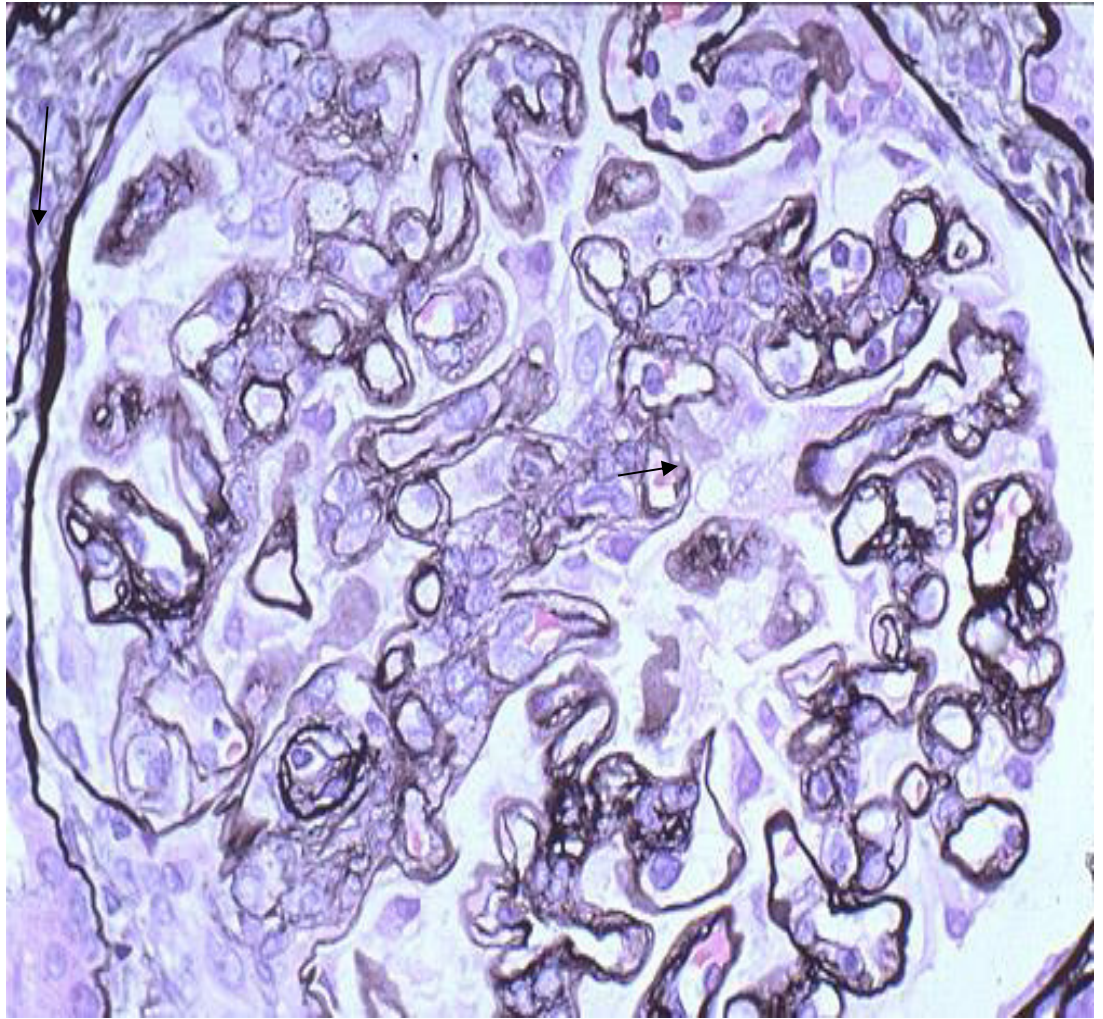
# Rapidly Progressive (Crescentic) Glomerulonephritis

- Types? **I, II, III**
- Characteristic IF findings?  
**Depends on type ...**
- Outcome?  
**poor**



**What type of special stain is this?**

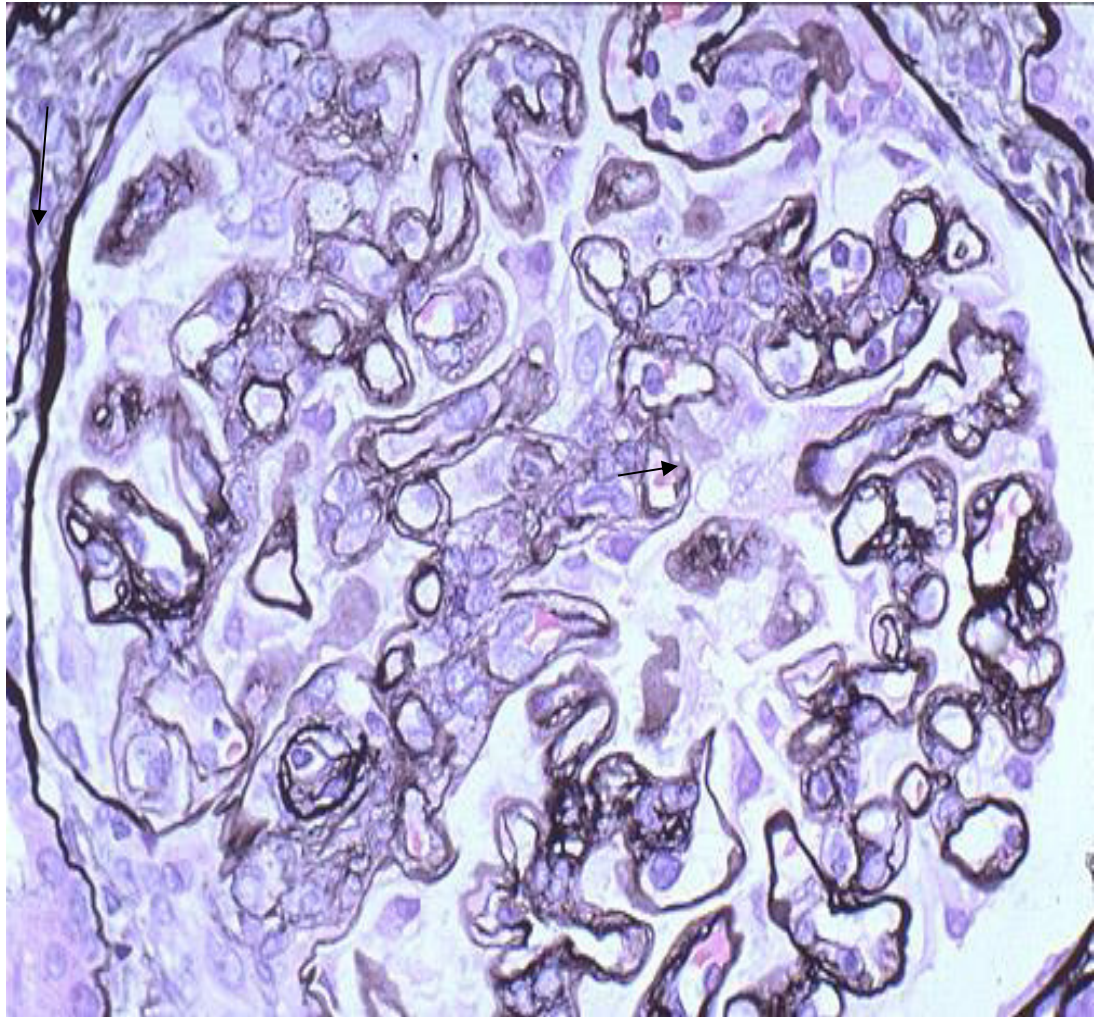
**What is the characteristic light microscopic finding you see here.**



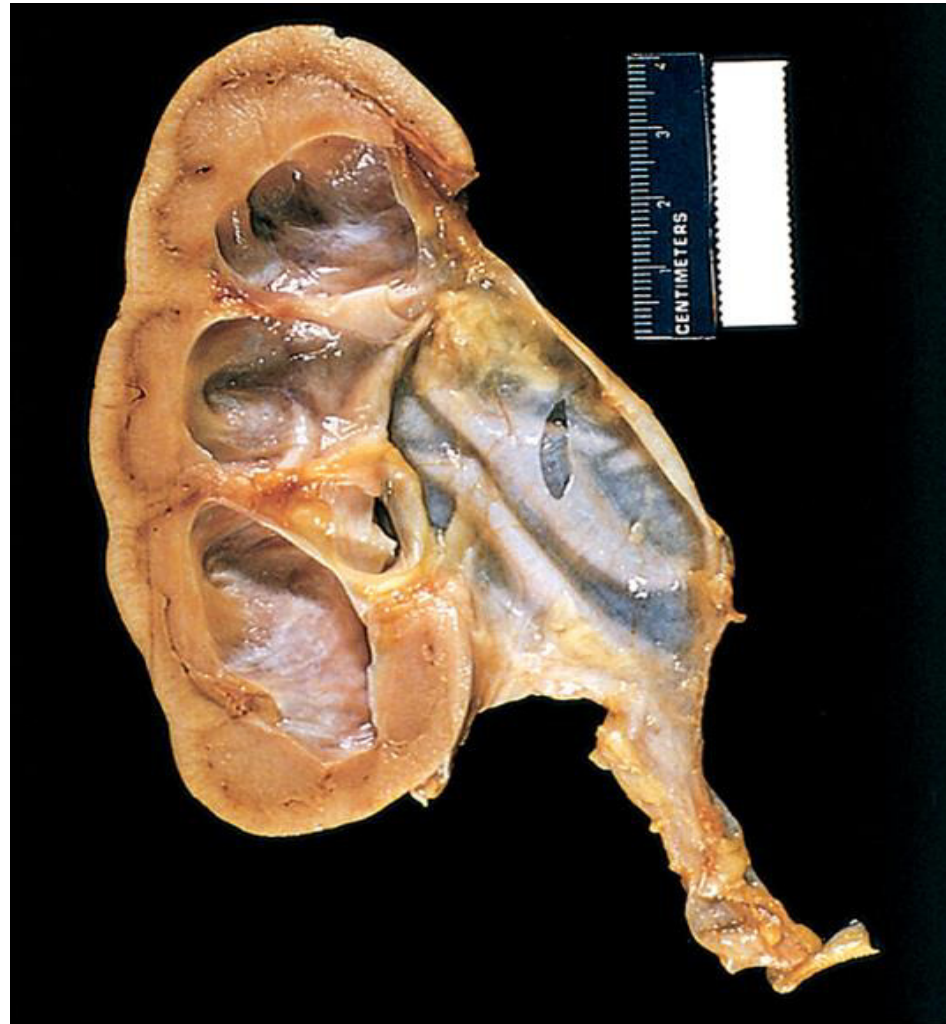
# MPGN

**What type of special stain is this?**

**What is the characteristic light microscopic finding you see here.**

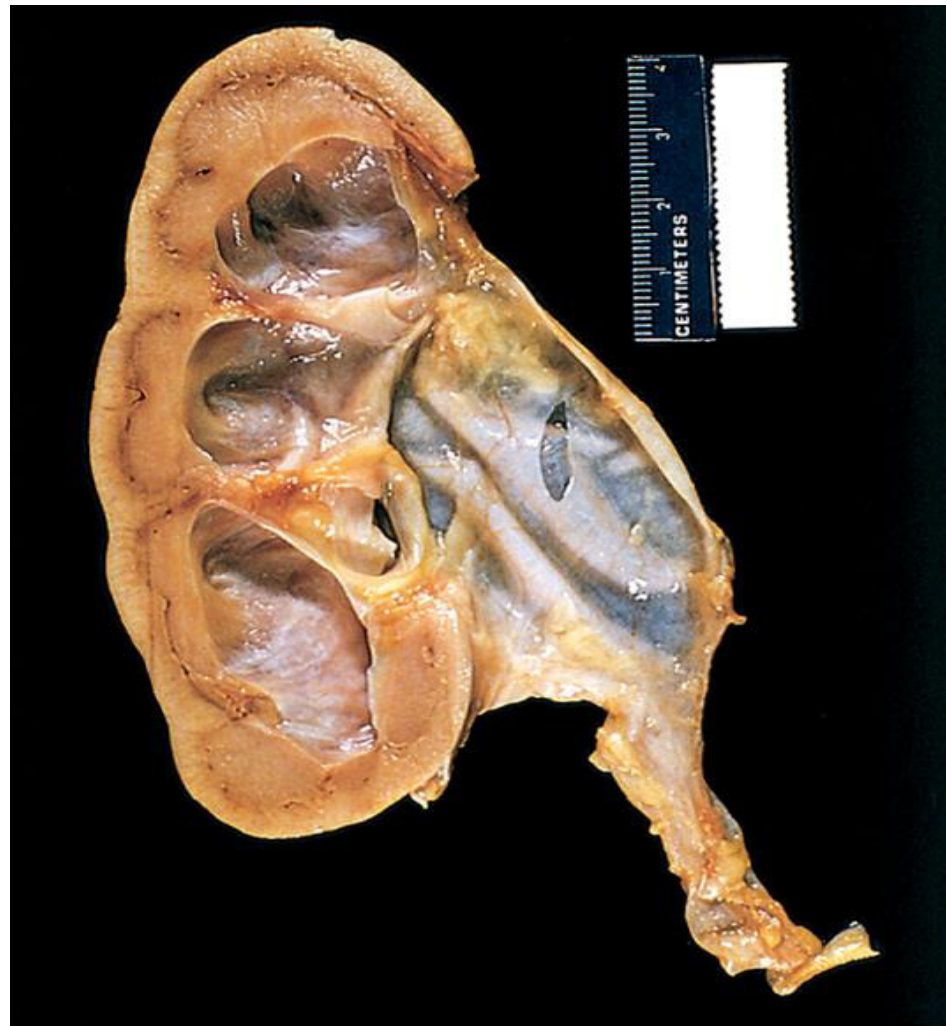


- Causes ?
- Consequences ?



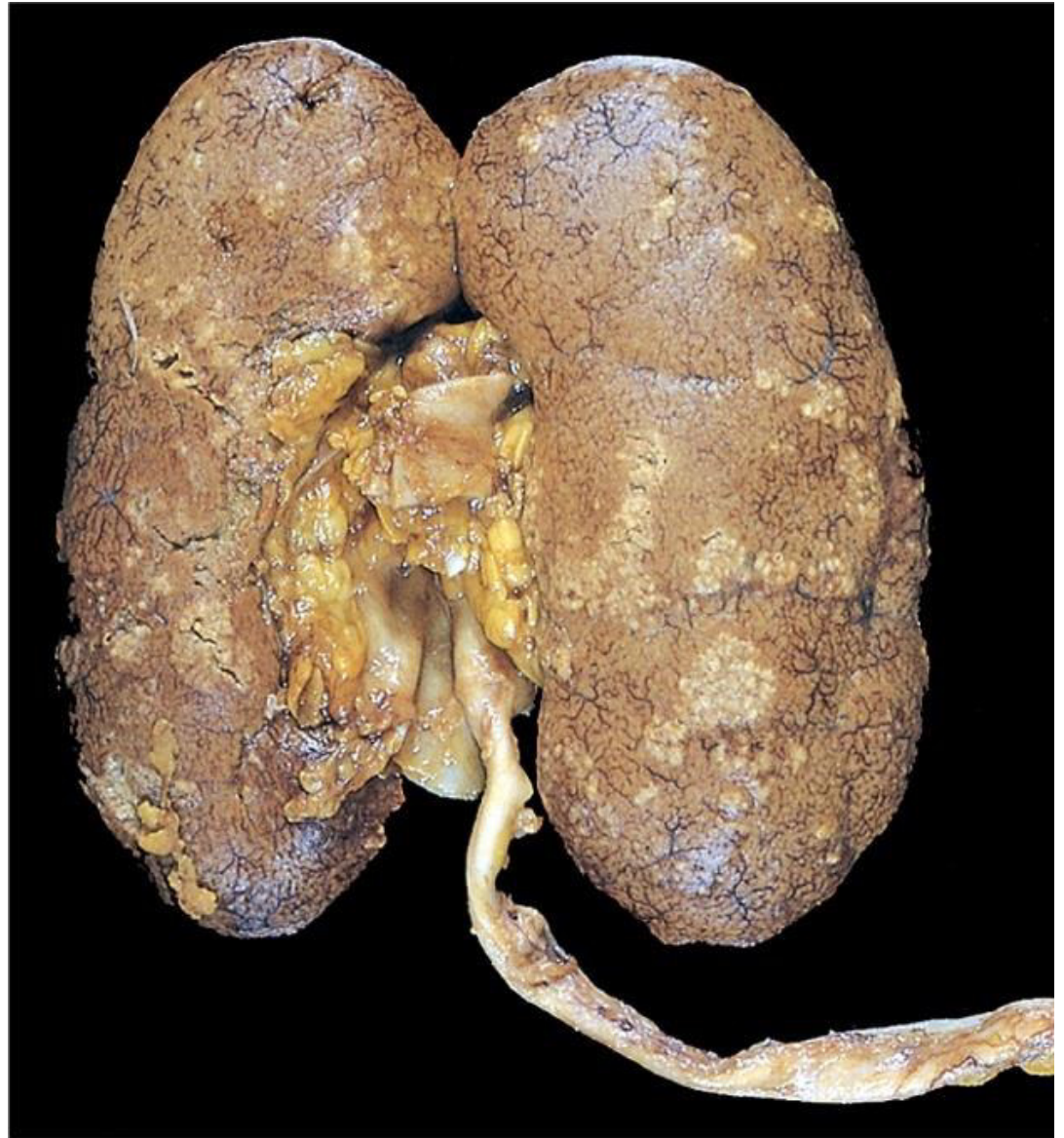
# hydronephrosis

- Causes ?  
**Congenital and acquired**
- Consequences ?  
**Chronic renal failure if cause not treated early**



# Pyelonephritis

- m/c  
microorganism  
?
- Risk factors?
- Complications  
?



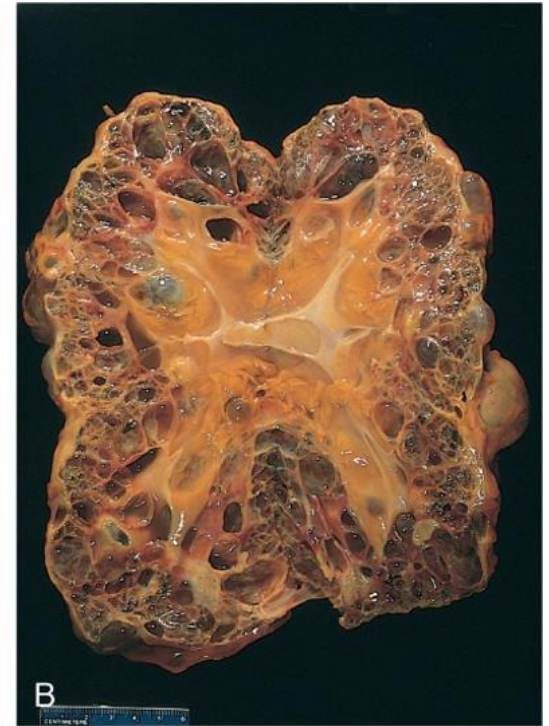
# Renal Cysts

- Describe what you see.
- what is the clinical significance of this condition?



# Renal Cysts

- Describe what you see.
- what is the clinical significance of this condition?
- name types and their genetic abnormalities.

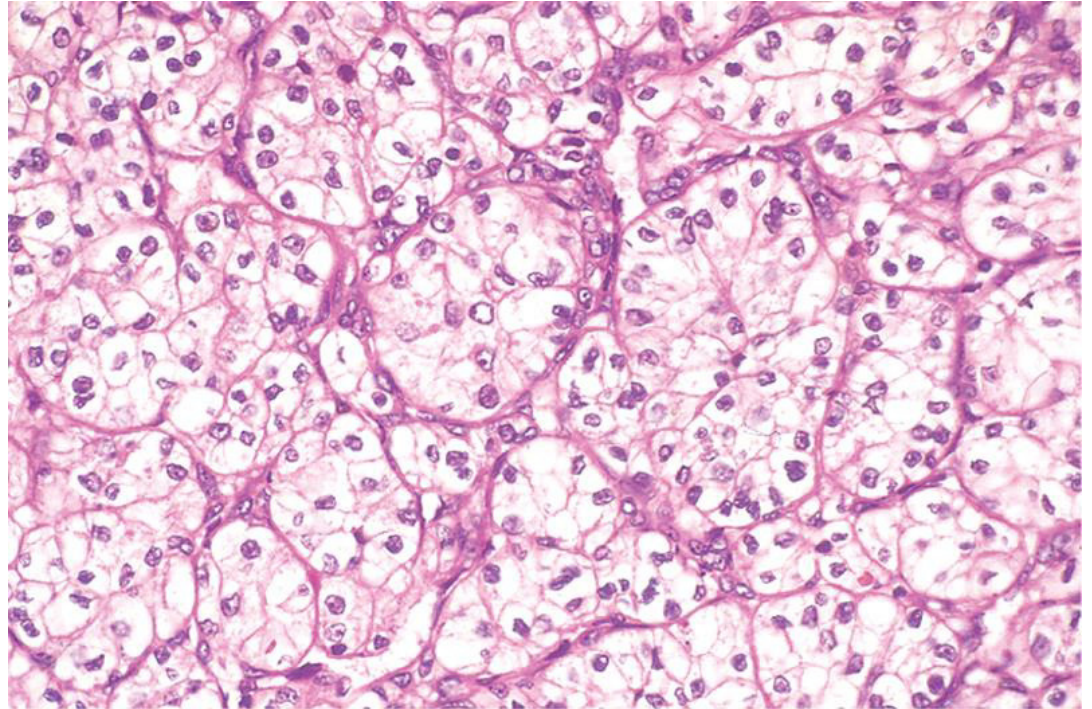


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# Renal tumors

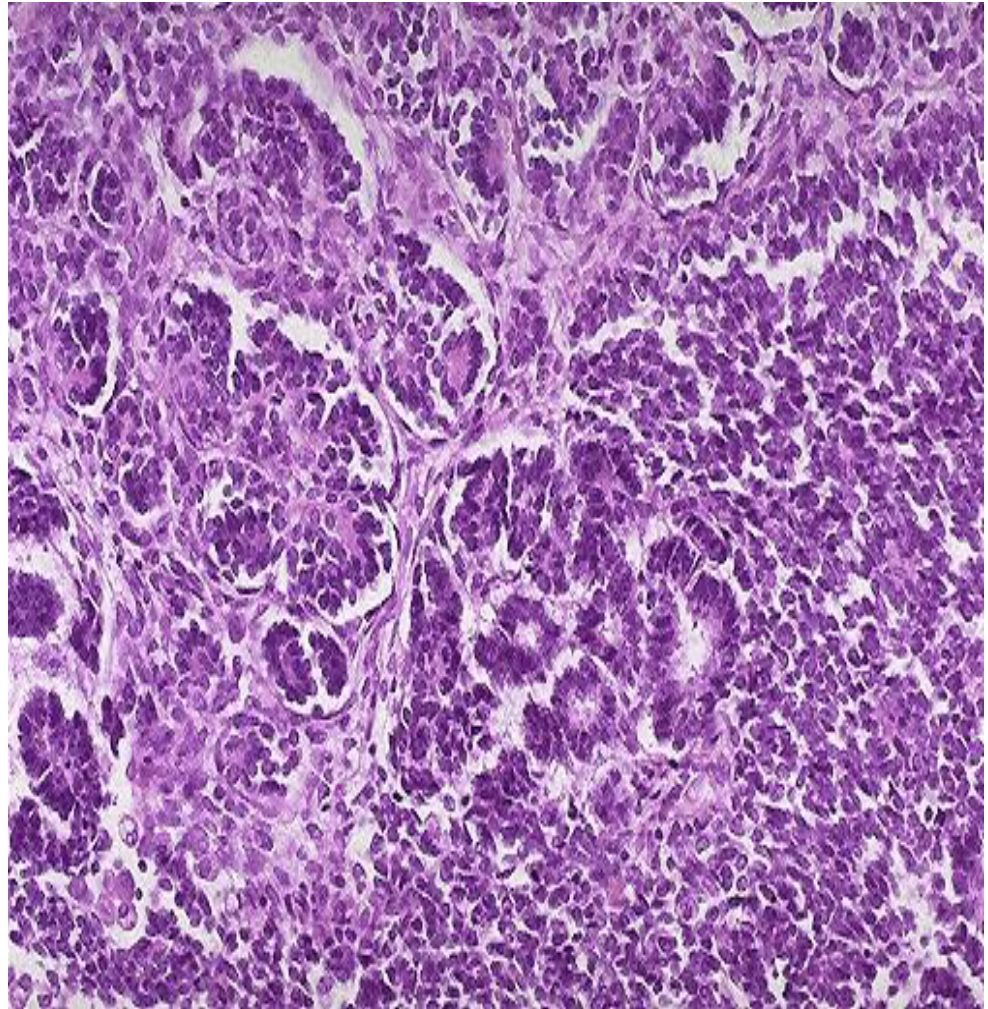
- what is the type of this tumor?
- Name a genetic predisposing factor for it?



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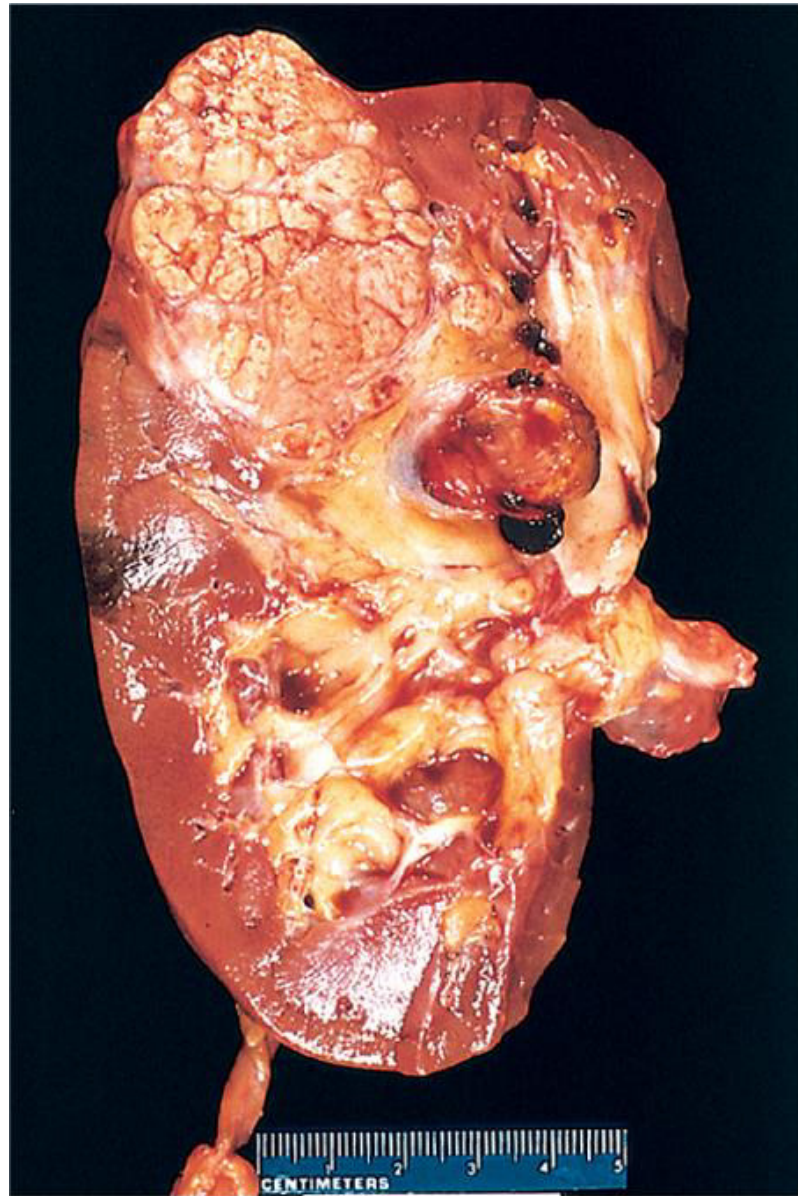
# Renal tumors

- what is the type of this tumor?
- Name a genetic predisposing factor for it?
- what is the peak age group of patients?



# Renal tumors

- **Types?**
- **describe the morphology of this lesion.**
- **name a paraneoplastic syndrome associated with this tumor.**



# Bladder tumor

Type?

Risk factors?

