

Paper II : - Technical Subject

1. General
 - 1.1 Anatomy of the kidney and urinary tract
 - 1.2 Physiology of the kidney and urinary tract
 - 1.3 Immunological basis of kidney damage
 - 1.4 Path physiology of Haematuria
 - 1.5 Path physiology of proteinuria
 - 1.6 Physiology of fluid and electrolytes balance
 - 1.7 Physiology of acid and base balance
 - 1.8 Investigations related to kidney diseases
2. Glomerular Diseases
 - 2.1 Glomerulonephritis
 - 2.1.1 Primary
 - 2.1.2 Postinfectious GN (Poststreptococcal GN)
 - 2.1.3 Systemic disease causing glomerulonephritis
 - 2.1.3.1 SLE
 - 2.1.3.2 Infective Endocarditis
 - 2.1.3.3 Good pastur syndrome
3. Systemic diseases affecting glomerulous
 - 3.1 Diabetes mellitus
 - 3.2 Hypertension
4. Functional defect and the diseases of the renal tubules and urinary tract
 - 4.1 Urinary tract infection
 - 4.2 Acute tract infection
 - 4.3 Renal tuberculosis
 - 4.4 Renal tubular acidosis
5. Obstruction of the urinary tract
 - 5.1 Calculous disease of the kidney and urinary tract
 - 5.2 Carcinoma of urinary bladder
 - 5.3 Enlarged prostate
 - 5.4 Urethral Structure
6. Drug induced renal disease
 - 6.1 Analgesics nephropathy
7. Malignant disease of the kidney
 - 7.1 Hypernephroma
8. Failure of the renal function
 - 8.1 Acute renal failure
 - 8.2 Chronic renal failure

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9. Metabolism
 - 9.1 Calcium and phosphorus metabolism
10. Renal replacement therapy
 - 10.1 Diseases
 - 10.1.1 Peritoneal
 - 10.1.1.1 Intermittent peritoneal dialysis
 - 10.1.1.2 Chronic ambulatory peritoneal dialysis
 - 10.2 Haemodialysis
 - 10.3 Vascular access for haemodialysis
 - 10.4 Basic Concept on Renal transplantation
11. Congenital diseases of the kidney
 - 11.1 Adult polycystic kidney disease
12. Renal vascular disease causing hypertension
 - 12.1 Renal artery stenosis
13. Acid base balance
 - 13.1 Acidosis
 - 13.1.1 Respiratory
 - 13.1.2 Metabolic
 - 13.2 Alkalosis
 - 13.2.1 Respiratory
 - 13.2.2 Metabolic
14. Electrolyte imbalance
 - 14.1 Sodium
 - 14.1.1 Hyponatracmia
 - 14.1.2 Hypernatracmia
 - 14.2 Potassium
 - 14.2.1 Hypookalaemia
 - 14.2.2 Hyperkalaemia
15. Prescribing drugs in renal failure
16. Diet in renal diseases

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Model Question

Q.1. A 15 yrs. old male admitted to the medical ward with the complaints of the swelling of the whole body for the last one month. There is no history of sore throat or skin infection. On examination there is marked oedema. Systemic examination revealed no significant abnormalities.

Investigation:-

Hb.- 12gm/dl, TCL-7600/cmm, ESR- 5mm/hr, Urine R/M-albumin-++++, Sugar-nil, RBC-nil, WBC-1-2/Hpf. Blood urea-5.6mmol/l, S.creatinine-104micromol/l, S.sodium-138mmol/l, S.potassium-4.5mmol/l, S.cholesterol-10mmol/l, Throat swab for C/S- no growth.

What is the possible diagnosis? What investigation would you like to do? How would you treat the case?

Q.2. Write down the pathophysiology of heamaturia.
