المحتوى العلمي للمقرر:

1-endocrines

1-1 introduction

1-2 mechanism of hormones action

1-3 hormones and cyclic AMP as chemical messenger

2- biochemical disorders in disease

3- Renal function

3-1 renal physiology

3-2 Kidney function

3-3 the formation of Urine

3-4 Clinical chemistry of renal disease

3-4-1- reduced GFR with normal tubule function:

3-4-2reduced tubule reabsorption with normal glomerular function

3-5 Clinical syndromes of renal disease

3-5-1Acute oliguria

3-5-2- Chronic renal dysfunction

3-5-3- Nephritic syndrome

3-5-4- low plasma urea concentration

3-5-5 Renal calculi

3-6 Diagnosis of renal dysfunction

4- Liver function

4-1 normal Liver physiology

4-2 Liver function

4-2-1 General metabolic functions

4-2-2 Synthetic functions

4-2-3 Excretion and detoxification

4-3 carbohydrate metabolism disorder (clinical chemistry feature)

4-4 Bilirubin metabolism and jaundice

4-5 Biochemical tests of liver

5-minerals Ca, PO_4

5-1 Calcium and phosphate metabolism

5-2 factors effected on Extracellular concentration

5-3 Disorder of calcium and phosphate metabolism

5-3-1 hypercalcaemia with hyperphosphataemia

5-3-2 hypercalcaemia with hypophosphataemia

5-3-3 hypocalcaemia with hypophosphataemia

5-3-4 hypocalcaemia with hyperphosphataemia

5-4 Tests for diagnosis the disorder of calcium metabolism

الكتب الأساسية:

D.L. Nelson, M.M. Cox ''lehninger principle of biochemistry'', freeman 5th edition, 2008

المرجع المساند:

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