

ENDOCRINE MEDICINE

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1. HYPOPARATHYROIDISM

2. Pseudohypoparathyroidism (of the type associated with somatic abnormality)

- Is not a congenital disorder
- Is not associated with mental retardation
- Is a cause of short stature
- Is usually associated with a normal serum calcium
- Responds to parathyroid hormone administration

78. Pseudohypoparathyroidism (of the type associated with somatic abnormality)

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2. DIABETES INSIPIDUS

4. A 55 year old woman with a history of severe depression and radical mastectomy for carcinoma breast 1 year previously develops polyuria, nocturia, and excessive thirst. Laboratory values are as follows:
 Serum electrolytes: $\text{Na}^+ = 149 \text{ mEq/L}$; $\text{K}^+ = 3.6 \text{ mEq/L}$
 Serum calcium: 9.5 mg/dL ,
 Blood glucose: 110 mg/dL ,
 Blood urea nitrogen: 30 mg/dL ,
 Urine osmolality: 150 mOsm/L

Which of the following is the most likely diagnosis?

- Psychogenic polydipsia
- Renal glycosuria
- Hypercalciuria
- Diabetes insipidus
- Inappropriate antidiuretic hormone syndrome

4. A 55 year old woman with a history of severe depression and radical mastectomy for carcinoma of the breast 1 year previously develops polyuria, nocturia, excessive thirst. Laboratory values are as follows:

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- Psychogenic polydipsia
- Renal glycosuria
- Hypercalciuria
- Diabetes insipidus

3. DIABETES MELLITUS

1. A 17-year-old man has lost 6kg over the past 2 months. He has also been excessively thirsty and not his usual self. A venous blood sample is taken.

Random venous blood glucose = 16mmol/L(300mg %). Which is the single most appropriate next step in management?

- a. 24th capillary glucose diary
- b. Fasting venous blood glucose
- c. Oral glucose tolerance test (OGTT)
- e. Repeat random venous blood glucose
- f. Start treatment for diabetes

2. A 68-year-old man undergoes retinal screening.

He has type 2 diabetes and uses insulin twice daily.

He is told that there is evidence of new vessel formation and asks his doctor for the significance of this finding. Which is the single most appropriate response?

- a. Areas of the eye that had previously been damaged have regenerated
- b. He is likely to lose his sight in this eye within 3 months
- c. His diabetic control is good and his vision is improving
- d. His disease is progressing and getting harder to control
- e. This is a normal finding in someone with type 2 diabetes

3. A 55 year old man is seen in the clinic for follow up of type 2 diabetes mellitus. He feels well' has been exercising regularly' and has had good control of his blood glucose on oral metformin' with HbA1c of 6.4% He has a history of mild hypertension and hyperlipidemia. Which of the following statements is correct regarding routine testing for diabetic patients?

- a.Dilated eye examination twice yearly
- b.24-hour urine protein annually
- c.Home fasting blood glucose measurement at least once per week

d.Urine microalbumin annually

e.Referral to neurologist for peripheral neuropathy evaluation

4. A 15 years old boy is brought to medical OPD by his mother in drowsy state. He is a known case of 1 diabetes Mellitus. Three days ago he developed productive cough and fever and he stopped insulin. On examination he is dehydrated, pulse is 130/min, BP 100/70 mmHg, temperature 1040 F. His breathing is de and rapid. Crepitations on the right side of the chest. Blood sugar is 500 mg/dl, TLC 16000 with 90 % neutro blood urea 60 mg/dl and serum creatinine 1.4 mg/dl. What is your most likely diagnosis?

- a.Hyperosmolar non ketotic coma
- b.Hypoglycemic brain injury
- c.Diabetic ketoacidosis
- d.Acute renal failure
- e.Diabetes ketoacidosis with pneumonia

5. A 14 years old boy presented with one month history of polyuria, polydypsia and polyphagia. On examination, he is thin lean and vitally stable. Systemic examination is normal. Investigations revealed fasting blood sugar of 400 md/dl and HBA 1c of 9.4 % The best treatment strategy for this patient is

- a.Diet control
- b.Oral sulphonylureas
- c.Oral metformin
- d.Start insulin
- e.Diet plus metformin

6. In a diabetic patient metformin is contraindicated in the presence of

- a.Neuropathy
- b.Retinopathy
- c.Renal failure
- d.Vasculopathy
- e.IHD

7. The following drugs can be used in diabetic painful neuropathy

- a. Carbamezepine
- b. Tricyclic
- c. Pre-Gabapentin
- d. Sodium Valproate
- e. All of them

8. A 68 years old man undergoes annual retinal screening. He has type 2 diabetes and uses insulin twice daily.

Following the scan, he asks his doctor what causes the presence of cotton-wool spots in his report.

Which is the single most appropriate response?

- a. Areas of tissue starved of oxygen
- b. Deposits of fat
- c. Formation of new blood vessels
- d. Small swollen vessels
- e. Small bleeds

9. A 17 year old man has lost 6kg over the past 2 months. He has also been excessively thirsty and not has usual self. A venous blood sample is taken.

Random venous blood glucose = 16mmol/L: Which is the single most appropriate next step in management?

- a. 24h capillary glucose diary
- b. Fasting venous blood glucose
- c. Oral glucose tolerance test
- d. Repeat random venous blood glucose
- e. Start treatment for diabetes

10. A 46 years old lady was presented with recurrent vaginal discharge and was treated for pruritis vulvae. She had no history of polyuria & polydipsia. Her BMI is 30. Investigations showed FBS 144mg/dl, 246mg/dl and HbA1c of 7.4%. Which drug will be the most suitable option for initiating treatment for this lady?

- a. Glimeperide
- b. Insulin
- c. Metformin
- d. GLP-1 analogue
- e. Pioglitazone

11. A 45 year old gentleman with type 2 diabetes is reviewed in the clinic. Because of inadequate control of glycemia and an HbA1c of 8.5%, a sulphonylurea is added to his metformin. When would you repeat test?

- a. After 2 weeks
- b. After a month
- c. After 3 months
- d. After 8 months
- e. After one year

12. Metformin if used in a patient with significant renal impairment (eGFR of 30 ml/min) can lead to the following complication?

- a. Further worsening of renal function
- b. Hypoglycemia
- c. Hypertension
- d. Proteinuria
- e. Lactic acidosis

13. A 70 year old male with long standing diabetes presents with severe pain in his left thigh. On examination there is marked wasting of his quadriceps likely cause of his current complaint?

- a. Diabetic amyotrophy
- b. Myonecrosis of quadriceps
- c. Pyomyositis
- d. Polymyositis
- e. Diabetic mononeuropathy

14. A 55-year-old man is seen in the clinic for follow-up of type 2 diabetes mellitus. He feels well, has been exercising regularly, and has had good control of his blood glucose on oral metformin, with HbA1c of 6.4%. He has a history of mild hypertension and hyperlipidemia. Which of the following statements is correct regarding routine testing for diabetic patients?

- a. Dilated eye examination twice yearly
- b. 24-hour urine protein annually
- c. Home fasting blood glucose measurement at least once per week
- d. Urine microalbumin annually
- e. Referral to neurologist for peripheral neuropathy evaluation

4. HYPERTHYROIDISM

1. During a yearlong training program, a 23 years old female Pakistan Air Force officer falls in class rank from first place to last place. She has also noted a lower pitch to her voice and coarsening of her hair, along with an increased tendency toward weight gain, menorrhagia and increasing intolerance to cold. Which of the following laboratory abnormalities is expected?

- a. Increased serum free T 4
- b. Increased serum T 3 resin uptake
- c. Increased saturation of thyroid hormone-binding sites on thyroid-binding globulin
- d. Increased thyroid-stimulating hormone
- e. Decreased serum cholesterol

2. Grave's disease is characterized by

- a. Diffuse goiter
- b. Exophthalmos
- c. Pretibial myxoedema
- d. Thyroid bruit
- e. All of the above

3) Which of the following medicines used for hyperthyroidism is safe in pregnancy?

- a. Carbimazole
- b. Methimazole
- c. Propyl thiouracil
- d. Propranolol
- e. All of them

5. ADDISON'S DX

1. A 14 years old boy is seen because of increasing weakness, easy fatigability and weight loss over the past 3 months. In addition, he has recently developed nausea, vomiting and abdominal pain. His blood pressure is markedly decreased and he has increased pigmentation of his skin creases. These findings are suggestive of

- a. Cushing syndrome
- b. Secondary hyperaldosteronism
- c. Osteitis fibrosa cystica
- d. Addison disease
- e. 1a-hydroxylase deficiency

2. A 50 years old obese man with BMI > 35 (otherwise asymptomatic) is referred to you by general practitioner for his persistently raised BP. You are suspecting secondary hypertension in this patient. Recalling causes of secondary hypertension, which of the following is not the cause of secondary hypertension.

- a. Polycystic kidney disease
- b. Pheochromocytoma
- c. Cushing syndrome
- d. Addison's disease
- e. Hyperthyroidism

3. A 28 years old lady who was treated for TB one year ago presented with fatigue, anorexia, low mood and weight loss. On examination she was tanned, BP 90/60mmHg, Pulse 76/min, GIT, Chest, CVS & CNS examination was unremarkable. Hb 12.8g/dl, TLC 7.3x10⁹/L, ESR 12, Na⁺ 124 mmol/L, K⁺ 5.7mmol/L, urea 42mg%, RBS 88mg/dl. Choose the most likely diagnosis.

- a. Chronic fatigue syndrome
- b. Reactivation of tuberculosis
- c. Psychological
- d. Diuretic use
- e. Addison's disease

6. THYROID NEOPLASM

1. On routine physical examination, a 28 years old woman is found to have a thyroid nodule. She denies pain, hoarseness, hemoptysis, or local symptoms. Serum TSH is normal. Which of the following is the best next step in evaluation?

- a. Thyroid ultrasonography
- b. Thyroid scan
- c. Surgical resection
- d. Fine needle aspiration of thyroid
- e. No further evaluation

2. The ideal treatment for a 80 year old patient with thyrotoxicosis due to toxic adenoma is

- a. Anti-thyroid drugs
- b. Surgery
- c. B-blockers
- d. Radioactive Iodine
- e. Fortified Iodine salt

3) On routine physical examination, a young woman is found to have a thyroid nodule. There is no pain, hoarseness, haemoptysis or local symptoms. Serum TSH is normal. The next step in evaluation is

- Ultrasoundography
- Thyroid scan
- Surgical resection
- Fine needle aspiration of thyroid
- Do nothing

4. On routine physical examination, a 28 years old woman is found to have a thyroid nodule. She denies pain, hoarseness, hemoptysis, or local symptoms. Serum TSH is normal. Which of the following is the best step in evaluation?

- Thyroid Ultrasonography
- Thyroid scan
- Surgical resection
- Fine needle aspiration of thyroid
- No further evaluation

7 PANCREATIC NEUROENDOCRINE TUMORS

1. An insulinoma

- Is not associated with peptic ulceration
- May not be malignant
- Leads to hypoglycaemia after prolonged fast (48 h) in most cases
- Is usually associated with a raised insulin: proinsulin ratio
- Often releases insulin after glycine administration

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- Leads to hypoglycaemia after prolonged fast (48 h) in most cases
- Is usually associated with a raised insulin: proinsulin ratio
- Often releases insulin after glycine administration

3. You are asked to evaluate a 38-year-old woman who has classic symptoms of hypoglycemia with

documented low plasma glucose levels. During a supervised fast in the hospital she is noted to develop hypoglycemia after four hours. Plasma insulin and C-peptide levels drawn at the time of symptoms are both markedly elevated. Which of the following is the most appropriate diagnostic test?

- Glucose tolerance test
- Glucagon stimulation test
- Tolbutamide stimulation test
- Superior mesenteric angiography
- Measurement of insulin-like growth factors

8. CONN SYNDROME

1. A 34 years old man is referred for evaluation of hypertension and persistent hypokalemia in spite of taking oral potassium supplements. Blood pressure is 180/110 mm Hg, Serum sodium is 149 mEq/L (normal 140-148 mEq/L), potassium = 3.3 mEq/L (normal 3.6-5.2 mEq/L), bicarbonate = 29 mEq/L (normal 22-29 mEq/L), chloride 103 mEq/L (normal 98-107 mEq/L) and urea nitrogen = 23 mg/dl (normal 7-18 mg/dl.). Computed tomography demonstrates a 3 cm mass in the right adrenal gland. The most likely diagnosis is

- Addison disease
- Cushing syndrome
- Sipple syndrome
- DiGeorge syndrome
- Conn's syndrome

2. Which of the following is a recognized feature of primary hyperaldosteronism (Conn's syndrome)?

- Muscle weakness
- Hypotension
- High blood renin level
- Hypokalaemia and Acidosis

3. Which of the following is a recognized feature of primary hyperaldosteronism (Conn's syndrome)?

- Muscle weakness
- Hypotension
- High blood renin levels
- Acidosis
- Hyperkalaemia

10. HYPOTHYROIDISM

1. A 45 years old lady come to a medical OPD with a complaint of increasing fatigue, somnolence, constipation and body aches. These symptoms have gradually increased over last two years. Her weight has A 45 years old lady has come to the medical OPD with a complaint of increasing fatigue, somnolence, increased the menstrual cycle is irregular and has difficulty in hearing. She looks pale. The skin is dry and the voice is hoarse. The pulse is 59/min and regular. Blood pressure is 130/80 mmHg. Thyroid function tests confirmed primary hypothyroidism.

What is the most sensitive test for thyroid function?

- a. Thyroid stimulating hormone (TSH)
- b. Radioactive iodine uptake
- c. Antibodies screening test
- d. Thyroid hormones T3, T4
- e. Serum thyroglobulin

2. A 46 year old woman has weight gain, sensitivity to cold, pulse = 50bpm, heart is enlarged with murmur. What is the single most likely diagnosis?

- a. Hypothyroidism
- b. Hyperthyroidism
- c. Cushing's syndrome
- d. Addison's disease
- e. Pheochromocytoma

3. On routine physical examination, a 28 years old woman is found to have a thyroid nodule. She denies pain, hoarseness, hemoptysis or local symptoms. Serum TSH is normal. Which of the following is the best next step in evaluation?

- a. Thyroid ultrasonography
- b. Thyroid scan
- c. Surgical resection
- d. Fine needle aspiration of thyroid
- e. No further evaluation

10. ACROMEGALY

1. A 42 years old female presented with 6 months history of worsening headache with deteriorating vision in both eyes and polyuria. She is taking

treatment for carpal tunnel syndrome. She has consulted her physician for menstrual irregularities and galactorrhea. She admitted rapid increase in the size of shoes and tight finger rings. Her BP was 190/110 the following is best treatment option for Acromegaly?

- a. Trans-sphenoidal surgery
- b. GH receptor antagonists
- c. Somatostatin analogues
- d. Dopamine antagonists
- e. Dopamine agonists

2. In a patient with Achromegaly presenting with a large macro adenoma with optic chiasm compression, the ideal treatment is

a. Steroids	b. Bromocriptine
c. Radiation	d. Surgery
e. Chemotherapy	

3. In a 24-year-old man, both symptoms and physical examination are suggestive of acromegaly; the patient is referred to you for evaluation. A random growth hormone level is 16 ng/ml (normal = 0-10). Which of the following is the next step?

- a. Referral to a neurosurgeon
- b. Referral for radiation therapy
- c. Glucose suppression test
- d. Treatment with bromocriptine
- e. Treatment with somatostatin infusion

11. AUTOIMMUNE THY DX

29. A 36 years old women presents with feeling of being tired and cold all the time. On examination she is having dull looking facial appearance, delayed relaxation of tendon reflexes and a firm non tender goiter. Blood tests reveal the following TSH = 24.3 mU/L (increased level), Free T4 = 5.48 nmol/L (decreased level) Anti- A 36 years old woman presents with feeling of being tired and cold all the time. On examination she is thyroid peroxidase antibodies= positive, what is the most likely diagnosis?

- a. Primary atrophic hypothyroidism

- b. Pituitary failure
- c. De Quervain's thyroiditis
- d. Iodine deficiency
- e. Hashimoto's thyroiditis

12. CUSHING SYNDROME

1. A 28 years old married lady presented to the medical OPD with the complaints of weight gain and depression. Examination revealed that she is overweight, BP is 190/100 mmHg. Her skin is thin and there are bruises on the arm and legs. Recently she was examined by ophthalmologist who found that she had bitemporal hemianopia. The random blood sugar is 250 mg%. you are suspecting cushing syndrome, which of the following test is screening test of choice?

- a. Low dose DM suppression
- b. High dose DM suppression
- c. 24 hours urinary cortisol
- d. Serum cortisol levels
- e. Serum ACTH levels

2. The best screening test for cushing disease is

- a. 24 Hr urinary cortisol
- b. Adrenal CT
- c. Random cortisol
- d. ACTH level

3. An overweight 45 years old lady is seen in the OPD. She has a BP of 170/100 mmHg and is suspected to have Cushing's syndrome. The best initial investigation to distinguish this diagnosis from simple obesity be

- a. Adrenal CT scan
- b. Serum potassium and bicarbonate levels
- c. A midnight salivary cortisol level
- d. MRI brain
- e. 24 hour urinary free cortisol

4. A fifty year old lady with centripetal obesity, acne and hirsutism. The most likely diagnosis is

- a. Cushing's syndrome
- b. Diabetes mellitus

- c. Hypogonadism
- d. Hypothyroidism
- e. Simple obesity

13. OBESITY

1. An obese lady BMI more than 35 presents with blood sugar of 300 mg/dl. The best treatment option is

- a. Metformin
- b. Short Acting Insulin
- c. Long Acting Insulin
- d. Mix insulin
- e. Glibenclamide

2. The anti diabetic agent of choice for a fifty year old obese lady with mild hyperglycemia is

- a. Chlorpropamide
- b. Glibenclamide
- c. Insulind.Metformin
- d. Repaglinide

3. The anti diabetic agent of choice for a fifty year old obese lady with mild hyperglycemia is

- a. Chlorpropamide
- b. Glibenclamide
- c. Insulin
- d. Metformin
- e. Repaglinide

15. HYPOGLYCEMIA

1. A 30 years old student presents with confusion, sweating, hunger and fatigue. Blood sugar is 40 mg/dl the patient has no history of diabetes mellitus, although her sister is an insulin-dependent diabetic. The patient has had several similar episodes over the past year, all occurring just prior to reporting for work in the early morning. At the time of hypoglycemia, the patient is found to have a high insulin level and a low C peptide level. Which of the following is the most likely diagnosis?

- a. Reactive hypoglycemia
- b. Pheochromocytoma
- c. hypercalcuria
- d. Diabetes insipidus

2) A 30 years old normal weight student presents with confusion, sweating, hunger and fatigue. Blood sugar is 40 mg/dl, The patient has no history of diabetes mellitus, although her sister is an insulin-dependent diabetic. The patient has had several similar episodes over the past year, all occurring just prior to reporting for C peptide level. Which of the following is the most likely diagnosis?

- Reactive hypoglycemia
- Pheochromocytoma
- Factitious hypoglycemia
- Insulinoma
- Sulfonylurea use

3. A 24-year-old, insulin-dependent diabetic man is treated with 45 units NPH insulin every morning and evening. Although laboratory data show a hemoglobin A1 level of 7.6% (normal = 4-8%), he reports that his home measurement of plasma glucose levels--measured three times daily, at 7:00 AM, 11:00 AM, and 5:00 PM--are consistently greater than 180 mg/dl. The most likely explanation for these findings is

- Renal glycosuria
- Hyporeninemic hypoaldosteronism
- Nocturnal hypoglycemia
- Diabetic gastroparesis
- Insulin resistance

14. MIX

1. A tentatively female newborn has ambiguous genitalia. What appears to be a vagina is associated significantly enlarged clitoris resembling a penis. Other findings include hyponatremia, hyperkalemia and hypotension. Deficiency of which of the following is suggested by these findings?

- 11-Hydroxylase
- 17-Hydroxylase
- 21-Hydroxylase
- Amylin
- 1α -Hydroxylase

2. A 45 years old male patient was admitted for a massive myocardial infarct in a coronary care unit. His fasting plasma biochemistry was: Na: 133 mmol/l, K: 4.4 mmol/l, Cl: 105 mmol/l, HCO₃: 23 mmol/l, creatinin 110 μ mol/l (60-120), Glucose (fasting): 8.9 mmol/l (3.5-6.4). What is the most likely diagnosis?

- Diabetes mellitus
- Diabetes insipidus
- Stress hyperglycemia
- Cushing's syndrome
- None of the above

3. A 40 years old woman presents to medical OPD with a three months history of tiredness, weight loss and vague abdominal pains, polyuria and polydipsia. Systemic examination is normal except a small mass in front of the neck. Chest x-ray normal, RBS 120 mg%, RFTs & TFTs are normal, serum calcium 16 mg/dl, serum phosphate decreased, alkaline phosphatase 500 IU/liter (normal 20-140). Ultra sound abdomen shows right renal stones. What is the most likely diagnosis?

- Primary hyperparathyroidism
- Primary hyperthyroidism
- Vitamin D intoxication
- Chronic renal failure
- Sarcoidosis

4. In a 64 year old person a blood sugar level of more than 600 mg/dl, pH of 7.4, serum sodium of 156 mmoles and urea of 120 mg/dl is compatible with a diagnosis of

- Crushing's syndrome
- Diabetic ketoacidosis
- Lactic acidosis
- Urinic acidosis
- Hyper Osmolar Non Ketotic State

5. A 50 years old hypertensive lady was hospitalized for generalized tonic clonic fits for 1 day. Six months ago she recovered from subarachnoid hemorrhage. O/E, BP 150/85mmHg, GCS 9/15, Fundi normal. Urine output was 380ml/24 hours. Investigations showed Hb 12.2g/dl, WBC 7060, Platelets 250000, urea 30mg/dl, Serum creatinine 0.9 mg/dl, RBS 108mg/dl, Na⁺ 120 mmol/L, K⁺ 3.6mmol/L. ECG, CXR & CT brain were normal. What is most likely diagnosis?

- a. Addison's disease
- b. Nephrogenic diabetes insipidus
- c. Central diabetes insipidus
- d. Cerebral salt wasting
- e. Syndrome of inappropriate ADH secretion

6. A 18 year old man presented with headache increased height and increased shoe size diagnosis is

- a. Dwarfism
- b. Cretinism
- c. Gigantism
- d. Acromegaly
- e. Constitutional growth

7. A 45-year-old, obese woman is given a routine skull roentgenogram following a car accident; an enlarged sella turcica is noted. Endocrine testing shows no abnormalities and computed tomography (CT scan) reveals an empty sella. Which of the following is appropriate management of this patient?

- a. Transsphenoidal surgery
- b. Radiation therapy
- c. Bromoergocryptine therapy
- d. Hormone replacement
- e. Reassurance

8. You are called in consultation to see a 17-year-old boy with persistent 2% glycosuria; plasma glucose values are consistently less than 120 mg/dl. Which of the following is the most likely explanation of this patient's condition?

- a. Werner's syndrome
- b. Insulin resistance
- c. Renal glycosuria
- d. Maturity-onset diabetes of the young
- e. None of the above

9. Which of the following is not the classical feature of addisonian crisis?

- a. A low blood sugar level
- b. A low plasma sodium
- c. A raised blood urea
- d. Fever
- e. Precipitation during pregnancy in a patient with chronic adrenal insufficiency

10. A 35 years old woman is seen 6 months after giving birth to a normal infant. She suffered severe cervical lacerations during delivery, resulting in hemorrhagic shock. Following blood transfusion and surgical repair, postpartum recovery has so far been uneventful. She now complains of continued amenorrhea and loss of weight and muscle strength. Further investigation might be expected to demonstrate which of the following findings?

- a. Decreased serum cortisol
- b. Hyperestrinism
- c. Hyperglycemia
- d. Increased hair growth in a male distribution pattern
- e. Increased serum free thyroxine

11. An acutely ill 18 year old female college student is brought to the emergency department by her roommate. The patient is febrile and markedly hypotensive and her mental status is obtunded. Numerous petechial and purpuric hemorrhages are scattered over the trunk and aspiration of a lesion reveals neutrophils engulfing gram-negative diplococci. Serum sodium is markedly decreased and serum potassium is increased. Coagulation testing reveals increased prothrombin time, activated partial thromboplastin time, and fibrin-fibrinogen

split products. Which of the following is most likely diagnosis?

- a. Conn syndrome
- b. Hyperprolactinoma
- c. Neuroblastoma
- d. Waterhouse-Friderichsen syndrome
- e. Sipple syndrome

12. In a patient with miliary tuberculosis presenting with increased pigmentation fasting hypoglycemia and hypotension. The most likely diagnosis is

- a. Pituitary involvement
- b. Intestinal TB
- c. Tuberculous meningitis
- d. Adrenal involvement
- e. Tuberculous pericarditis

13. A 30 year old lady presents with increasing lethargy, weakness and episodes of fainting. She had delivered a baby a year ago complicated by severe Post Partum Hemorrhage. Since then she has not been able to lactate. She is hypotensive with slow relaxation of ankle reflexes. The most likely diagnosis is

- a. Hypothyroidism
- b. Adrenal failure
- c. Ovarian failure
- d. Hypopituitarism
- e. Pituitary Tumor

14. A 28 year old man has noticed that the tissue around his breasts has become increasingly swollen. They are non-tender. He has recently started chemotherapy for testicular cancer. Which is the single most likely biochemical cause for this change?

- a. Decreased androgens
- b. Decreased dopamine
- c. Increased growth hormone
- d. Increased estrogen: androgen ratio
- e. Increased prolactin

15. A 35 years old woman is seen 6 months after giving birth to a normal infant. She suffered cervical

lacerations during delivery, resulting in hemorrhagic shock. Following blood transfusion and surgical repair, postpartum muscle strength. Further investigation might be expected to demonstrate which of the following findings? recovery has so far been uneventful. She now complains of continued amenorrhea and loss of weight and

- a. Decreased serum cortisol
- b. Hyperestrinism
- c. Hyperglycemia
- d. Increased hair growth in a male distribution pattern
- e. Increased serum free thyroxine

16) An acutely ill 18 year old female college student is brought to the casualty department by her roommate. The patient is febrile and markedly hypotensive and her mental status is obtunded. Numerous petechial and purpuric hemorrhages are scattered over the trunk and aspiration of a lesion reveals neutrophils engulfing gram- reveals increased prothrombin time, activated partial thromboplastin time, and fibrin-fibrinogen split products. Which of the following is most likely diagnosis?

- a. Conn syndrome
- b. Hyperprolactinoma
- c. Neuroblastoma
- d. Waterhouse-Friderichsen syndrome
- e. Sipple's syndrome

17) A 28-year-old man has noticed that the tissue around his breasts has become increasingly swollen. These are non-tender. He has recently started chemotherapy for testicular cancer. Which is the single most biochemical cause for this change?

- a. Decreased Androgen
- b. Decreased Dopamine
- c. Increased Growth hormone
- d. Increased estrogen: androgen ratio
- e. Increased Prolactin

18. A 12-year-old boy is referred to you for evaluation of diabetes insipidus. Physical examination reveals exophthalmos; skull roentgenograms show punched-out lesions. The most likely diagnosis is

- a. Meningioma
- b. Sarcoidosis.
- c. Hemochromatosis
- d. Histiocytosis X
- e. Pituitary apoplexy

19. A 36-year-old man with an 18-year history of insulin-dependent diabetes has been admitted to the hospital for severe hypoglycemia four times in the past six months. In the hospital, insulin-induced hypoglycemia shows failure to recover (nadir plasma glucose is 32 mg/dl; 20 minutes later, plasma glucose is 34 mg/dl). The most likely explanation for the failure to raise blood glucose levels in response to hypoglycemia is

- a. Glucocorticoid deficiency alone
- b. Epinephrine deficiency alone
- c. Glucagon deficiency and glucocorticoid deficiency
- d. Epinephrine deficiency and glucocorticoid deficiency
- e. Epinephrine deficiency and glucagon deficiency

20. A 58-year-old woman with non-insulin-dependent diabetes is currently being treated with insulin, 240 units daily. She is 61 inches tall and weighs 260 pounds. Hemoglobin A1c levels are 15% and fasting glucose levels are 280-325 mg/dl. Which of the following is the most likely cause of the insulin resistance?

- a. Insulin antibodies
- b. Cushing's syndrome
- c. High caloric intake
- d. Destruction of insulin at the injection site
- e. Antibodies to the insulin receptor

21. A 55-year-old man presents to the office with erectile dysfunction. He has mild diabetes and is on

a ACE inhibitor for hypertension. He and his wife enjoy a good relationship, and there is little external stress. He has, however, noted a lessening of sexual desire; they have not had intercourse in the past 6 months. The general physical examination is normal. In particular, his peripheral sensation to monofilament is intact, and vascular has, however, noted a lessening of sexual desire; they have not had intercourse in the past 6 months. The general examination of the lower extremities is normal. Testicular size is mildly decreased bilaterally. Which of the following is the most appropriate first step in evaluation?

- a. Serum-free testosterone and gonadotrophin levels
- b. Hemoglobin A1c and ankle-brachial index
- c. Psychological evaluation
- d. Therapeutic trial of sildenafil
- e. Morning total testosterone and prolactin level

22. Which of the following is not the classical feature of addisonian crisis?

- a. A low blood sugar level
- b. A low plasma sodium
- c. A raised blood urea
- d. Fever
- e. Precipitation during pregnancy in a patient with chronic adrenal insufficiency

23. Which of the following is a recognized feature of primary hyperaldosteronism (Conn's syndrome)

- a. Muscle weakness
- b. Hypotension
- c. High blood renin level
- d. Acidosis
- e. Hypokalaemia

24. A 32-year-old woman presents with amenorrhea, galactorrhea and visual field defects, all of several months duration. Magnetic resonance imaging reveals a hypophyseal mass impinging on the optic chiasm. The most likely diagnosis is

- a. Prolactinoma

- b. Somatotrophic adenoma
- c. Corticotrophic adenoma
- d. Craniopharyngioma
- e. Acidophilic adenoma

25. A 36 years old man is brought to the emergency department by his wife because of lethargy, weakness and confusion. Serum sodium and serum osmolality are markedly decreased. Urine osmolality is increased. These findings are most likely related to

- a. Adenoma of the anterior pituitary
- b. Adenoma of the posterior pituitary
- c. Bronchogenic carcinoma
- d. Diabetes insipidus
- e. Sheehan syndrome

26. A 26 years old woman has episodic hypertension with headache, diaphoresis and palpitation. Which of the following diagnostic procedures would be most useful in evaluating the possibility that a phaeochromocytoma might be the cause of these findings?

- a. Serum C-peptide
- b. Serum calcitonin
- c. Serum hemoglobin A1c (glycosylated hemoglobin)
- d. Urinary Aldosterone
- e. Urinary vanillylmandelic acid

27. A 28 year old man is evaluated for recurrent peptic ulcer disease, apparently refractory to pharmacologic intervention. Serum gastrin is markedly elevated. These findings are most characteristic of which of the following?

- a. Cushing syndrome
- b. Glucagonoma
- c. Whipple triad
- d. Zollinger-Ellison syndrome
- e. Acromegaly

28. A 55-year-old man presents to the office with erectile dysfunction. He has mild diabetes and is on an ACE inhibitor for hypertension. He and his wife

enjoy a good relationship, and there is little external stress. He has, however, noted a lessening of sexual desire; they have not had intercourse in the past 6 months. The general physical examination is normal. In particular, his peripheral sensation to monofilament is intact, and vascular examination of the lower extremities is normal. Testicular size is mildly decreased bilaterally. Which of the following is the most appropriate first step in evaluation?

- a. Serum-free testosterone and gonadotrophin levels
- b. Hemoglobin A1C and ankle-brachial index
- c. Psychological evaluation
- d. Therapeutic trial of sildenafil
- e. Morning total testosterone and prolactin level

29. A 52 years old man complains of impotence. On physical examination, he has an elevated jugular venous pressure, 53 gallop and hepatomegaly. He also appears tanned, with pigmentation along joint folds. His left knee is swollen and tender. The plasma glucose is 250 mg/dl and liver enzymes are elevated. Which of the following studies will help establish the diagnosis?

- a. Detection of nocturnal penile tumescence
- b. Determination of iron saturation
- c. Determination of serum copper
- d. Detection of hepatitis B surface antigen
- e. Echocardiography

ANSWER KEYS

1. HYPOPARATHYROIDISM

1.C 2.C

2. DIABETES INSIPIDUS

1.D 2.D

3. DIABETES MELLITUS

1.E	2.D	3.D	4.E	5.D
6.C	7.E	8.A	9.E	10.C
11.C	12.E	13.A	14.D	

4. HYPERTHYROIDISM

1.D 2.E 3.C

5. ADDISON'S DX

1.D 2.D 3.E

6. THYROID NEOPLASM

1.D	2.D	3.D	4.D
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7. PANCREATIC NEOENDOCRINE TUMOURS

1.C 2.C 3.D

8. CONN SYNDROME

1.E 2.E 3.A

9. HYPOTHYROIDISM

1.A 2.A 3.D

10. ACROMEGALY

1.A 2.D 3.C 4.B

11. CUSHING SYNDROME

1.C 2.A 3.E 4.A

12. OBESITY

1.A 2.D 3.C

13. HYPOGLYCEMIA

1.C 2.C 3.C

14. MIX

1.C	2.C	3.A	4.E	5.E
6.C	7.E	8.C	9.E	10.A
11.D	12.D	13.D	14.D	15.A
16.D	17.D	18.C	19.E	20.C
21.E	22.E	23.E	24.A	25.C
26.E	27.D	28.E	29.B	---