ABFM Diabetes SAM Part 4

37. A 55-year-old male with type 2 diabetes mellitus has a chronic history of reduced libido and erectile dysfunction. On examination you note hepatomegaly and mild testicular atrophy. You perform a non-fasting laboratory workup, with the following serum levels reported:

Glucose. . . . . 250 mg/dL

AST. . . . . 260 U/L (N 10–40)

ALT. . . . . 210 U/L (N 10–55)

FSH. . . . . 5.0 U/mL (N 1.0–12.0)

LH.. . . . . 8.1 U/mL (N 2.0–12.0)

Testosterone. . . . . 180 ng/mL (N 280–1250)

What is the most likely diagnosis?

A) Glucagonoma

B) Hemochromatosis

C) Pheochromocytoma

D) Acromegaly

E) Cushing’s syndrome

38. A 72 YO M sees you for a routine annual visit. PMH T2DM, CKD3, hyperlipidemia, TIA s/p CEA, and bladder cancer. Meds metformin 500 bid, sitagliptin 50 qd, nateglinide 120 tid ac, simvastatin 40 qd, ASA 81 qd. BP 134/76, BMI 28.2. Scattered AKs on forearms and absent pedal pulses

Labs:

Cr	1.9 (N0.6-1.5) – EGFR 52
BUN	45
A1C	7.8
LDL	95
HDL	33
TGL	163

Which of the following would be appropriate at this time? (Mark all that are true)

A) Increasing the dosage of simvastatin to 80 qd

B) Starting basal insulin

C) Starting niacin ER 500 qd

D) Starting lisinopril 5 qd

E) Starting pioglitazone 15 qd

39. A 60-year-old groundskeeper is brought to the emergency department unconscious. His temperature is 38.1°C (100.6°F) rectally, blood pressure 96/70 mm Hg, pulse 128 beats/min, and respirations 15/min. The examination is otherwise unremarkable except for very dry skin and mucous membranes.

Laboratory Findings

Serum sodium. . . . . 150 mmol/L (N 135–145)
Serum potassium. . . . . 3.1 mmol/L (N 3.5–5.0)
Serum chloride. . . . . 112 mmol/L (N 100–108)
CO2 . . . . . 26 mmol/L (N 24–30)
Serum glucose. . . . . 1100 mg/dL
Serum creatinine. . . . . 4.0 mg/dL (N 0.6–1.5)
BUN.. . . . . 70 mg/dL (N 8–25)
Serum ketones. . . . . small amount present

Which one of the following is the most likely diagnosis?

A) Diabetic ketoacidosis
B) Diabetes mellitus with lactic acidosis
C) Diabetes mellitus with sepsis
D) Hyperosmolar, hyperglycemic state
E) Paraldehyde toxicity

40. A 71-year-old male with a history of type 2 diabetes mellitus and long-standing hypertension sees you because of worsening ankle edema, weight gain, and “getting more winded” when climbing stairs. His current medications are glipizide (Glucotrol), 10 mg/day; pioglitazone (Actos), 30 mg/day; extended-release metformin (Glucophage XR), 1000 mg/day; acarbose (Precose), 25 mg three times a day; lisinopril (Prinivil, Zestril), 40 mg/day; and hydrochlorothiazide, 12.5 mg/day.

Which one of his medications is most likely responsible for his symptoms?

A) Metformin

B) Glipizide

C) Pioglitazone

D) Acarbose

41. Which one of the following types of insulin should never be mixed with any other form of insulin?

A) Lente

B) Ultralente

C) Insulin glargine

D) NPH

E) Insulin lispro

42. Which one of the following oral agents is most likely to produce weight loss in the diabetic patient?

A) Thiazolidinediones

B) GLP-1-receptor agonists

C) Sulfonylureas

D) Metformin

E) Alpha-glucosidase inhibitors

43. What is the minimum degree of weight loss recommended to reduce the risk of diabetes mellitus in a patient with impaired glucose tolerance?

A) Weight reduction of 2%–4%

B) Weight reduction of 5%–10%

C) Weight reduction of 10%–20%

D) Weight reduction of 20%–30%

E) Achievement of ideal body weight

44. A 39-year-old female with type 2 diabetes mellitus develops microalbuminuria and is started on enalapril (Vasotec). At a follow-up visit 2 months later, an electrolyte panel reveals a normal serum creatinine level of 1.1 mg/dL, but her potassium level has risen from a baseline of 4.0 mmol/L to its present level of 5.4 mmol/L (N 3.5–5.0).

Which one of the following is the most likely cause of her potassium elevation?

A) Diabetic glomerulosclerosis

B) Hyporeninemic hypoaldosteronism

C) Hyperaldosteronism

D) Hemolytic anemia

E) Bilateral renal artery stenosis

45. A 42-year-old female with a body mass index (BMI) of 31 kg/m2 has a 3-week history of polyuria and polydipsia, accompanied by a 10-lb weight loss. Her fasting plasma glucose level is 320 mg/dL, and her hemoglobin A1c is 11.1%.

Which one of the following is most likely to reverse her glucose toxicity and improve her glycemic response?

A) Metformin (Glucophage)

B) Pioglitazone (Actos)

C) Glipizide (Glucotrol)

D) Acarbose (Precose)

E) Insulin

46. A 58-year-old female sees you for her annual checkup. Her past medical history is notable for a 15-year history of type 2 diabetes and hypercholesterolemia. Her current medications are extended-release metformin (Glucophage XR), 2000 mg/day; extended-release glipizide (Glucotrol XL), 5 mg/day; atorvastatin (Lipitor), 10 mg/day; and aspirin, 81 mg/day.

The physical examination is unremarkable. The patient's blood pressure is 128/78 mm Hg and her BMI is 29.1 kg/m2.

Laboratory testing reveals a hemoglobin A1C of 7.2%, an LDL-cholesterol level of 85 mg/dL, an HDL-cholesterol level of 36 mg/dL, and a serum triglyceride level of 190 mg/dL.

The patient tells you that she plans to start "jogging," and you order an exercise nuclear stress test which reveals findings suspicious for exercise induced ischemia. Coronary angiography reveals a 65% stenosis of the mid-right coronary artery.

True statements regarding this situation include which of the following?

(Mark all that are true.)

A) The patient's aspirin dosage should be increased to 325 mg/day since it is now for secondary prevention

B) The patient's atorvastatin dosage should be increased

C) The patient's glipizide dosage should be increased

D) Prompt revascularization has been shown to be superior to intensive medical therapy in terms of mortality and major cardiovascular events

E) Percutaneous coronary intervention and coronary artery bypass graft surgery are equally effective in patients with diabetes mellitus and coronary heart disease

47. Patients must eat within 15 minutes of administration of which one of the following types of insulin?

A) Lente

B) Ultralente

C) Insulin glargine

D) NPH

E) Insulin lispro

48. The United Kingdom Prospective Diabetes Study found which one of the following interventions to be most effective in reducing the risk of stroke and heart failure in diabetics?

A) Good glycemic control

B) Aggressive treatment of mild-to-moderate hypertension

C) Aggressive treatment to lower triglyceride levels and raise HDL-cholesterol levels

D) Aspirin therapy

E) Use of an ACE inhibitor