Multiple-Choice Questions in Dyslipidemias

Questions :

1 - A 52 years old woman presents for evaluation of attempts to decrease the level of fat in her diet. She initially presented 8 weeks ago with the following lipid profile : cholesterol : 10.8mmol/L ; triglycerides : 0.97mmol/L ; HDL cholesterol : 1.0mmol/L. Her father and two brothers had myocardial infarctions before age 40. On initial physical examination you noted several nodular enlargements on her Achilles tendons. You recommended decreasing the saturated fat and cholesterol in her diet, to which she agreed. Four weeks after her initial visit, you initated post-menopausal hormone replacement therapy with a combination of transdermal estrogen cycled with progesterone. After each intervention her HDL cholesterol level decreased, first to 0.85mmol/L then 0.75mmol/L, causing both you and the patient to be concerned.

What is the best therapeutic approach to take now ?

A - Discontinue the low-fat diet
B - Discontinue her hormone replacement
C - Prescribe an HMG CoA reductase in hibitor
D - Recommend moderate alcohol ingestion
E - Prescribe gemfibrozil

2 - A Healthy 62 years old woman presents in your office having been told of a cholesterol measurement of 7.2mmol/L, which was obtained at work-site health promotion. A repeat cholesterol measurement in your office confirms this, and you obtain triglyceride and HDL cholesterol levels. Glucose levels and renal and liver function tests are normal.

Which of following should you measure now ?

A - Glycosylated hemoglobin concentration
B - LDL cholesterol concentration
C - Thyroid-stimulating hormone concentra tion
D - Apolioproteins concentration
E - Antinuclear antibody concentration

3 - An obese 57 years old man whom you have been treating for hypercholesterolemia presents to your office for routine monitoring. During the past year, his plasma cholesterol level has varied from 6.4mmol/L to 6.8mmol/L. Additionally, he has had fluctuations in his weight and fasting glucose level. Because of concerns about these elevated cholesterol levels, you started treating him with cholestyramine therapy 2 months ago. The most recent measurement shows that his cholesterol level has increased.

Which lipoprotein level is most likely to be elevated ?

A - LDL
B - Beta VLDL
C - VLDL
D - Lipoprotein (a)
E - HDL

4 - A 37 year old man presents for his yearly physical examination and found an HDL cholesterol level of 0.87mmol/L. He is concerned and asks you what have caused this low HDL cholesterol level.

What would you tell him is the single most important determinant of HDL ?

A - Lack of exercise
B - Excess body weight
C - Genetics
D - High-fat, high-cholesterol diet
E - Alcohol

5 - You have recommended dietary therapy for a child who has hepercholesterolemia. Fats in the diet should provide no more than :

A - 10% of calories
B - 20% of calories
C - 30% of calories
D - 40% of calories
E - 50% of calories

6 - Your 12-year-old patient who has moderate hypercholesterolemia has failed an adequate trial of dietary intervention over a 12 months period. You have elected to initiate drug therapy. Your first choice would be :

A - Bile acid sequestrant
B - Gemfibrozil
C - HMG CoA-reductase inhibitor
D - Nicotine acid
E - Probucol

7 - Which plasma lipoprotein(s) contain apoprotein B ?

A - LDL
B - Chylomicons
C - IDL
D - HDL

8 - All of the following are associated with high risk of premature coronary heart disease EXCEPT :

A - Higher plasma HDL concentrations
B - Higher plasma cholesterol levels
C - Higher plasma LDL-cholesterol levels
D - Lower plasma HDL cholesterol concentrations

9 - What is the presumed defect in most cases of familial type II-a hyperlipoproteinemia ?

A - Deficiency of hydroxymethylglutaryl (HMG)-CoA reductase
B - Deficiency of cholesterol esterase
C - Deficiency of lipoprotein lipase
D - Defective lipoprotein degradation by reticuloendothelial system
E - None of the above

Answer Key :

1 - C
2 - C
3 - C
4 - C
5 - C
6 - A
7 - A, B, C
8 - A
9 - E

QUIZ 1

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A 53 year old women with neurofibromatosis presented with an asymptomatic nodule over the right popliteal fossa (Figure 1). A granulomatous inflammation was evident on hitologic examination of skin biopsy (Figure 2).

Figure 1 : of Quiz 1

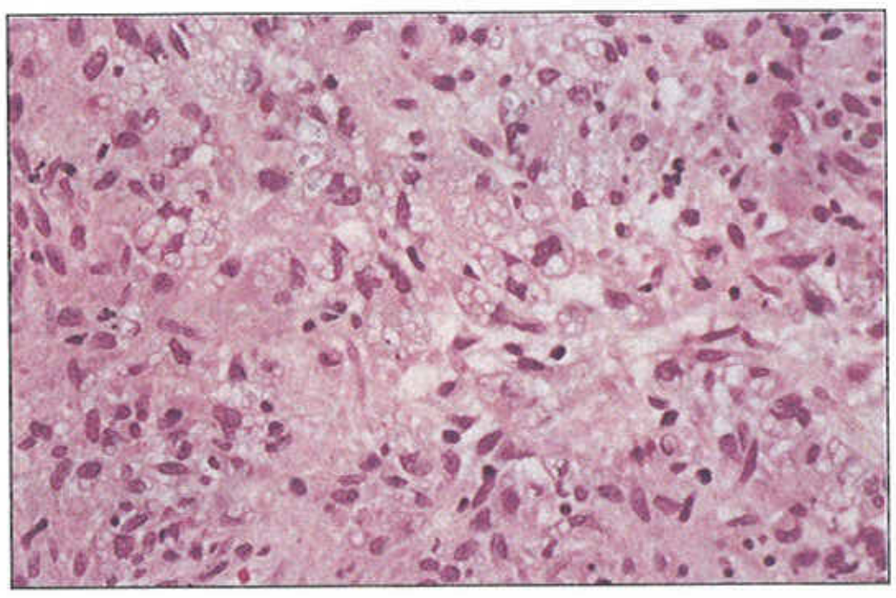

Figure 2 : of Quiz 1

What is your diagnosis ?