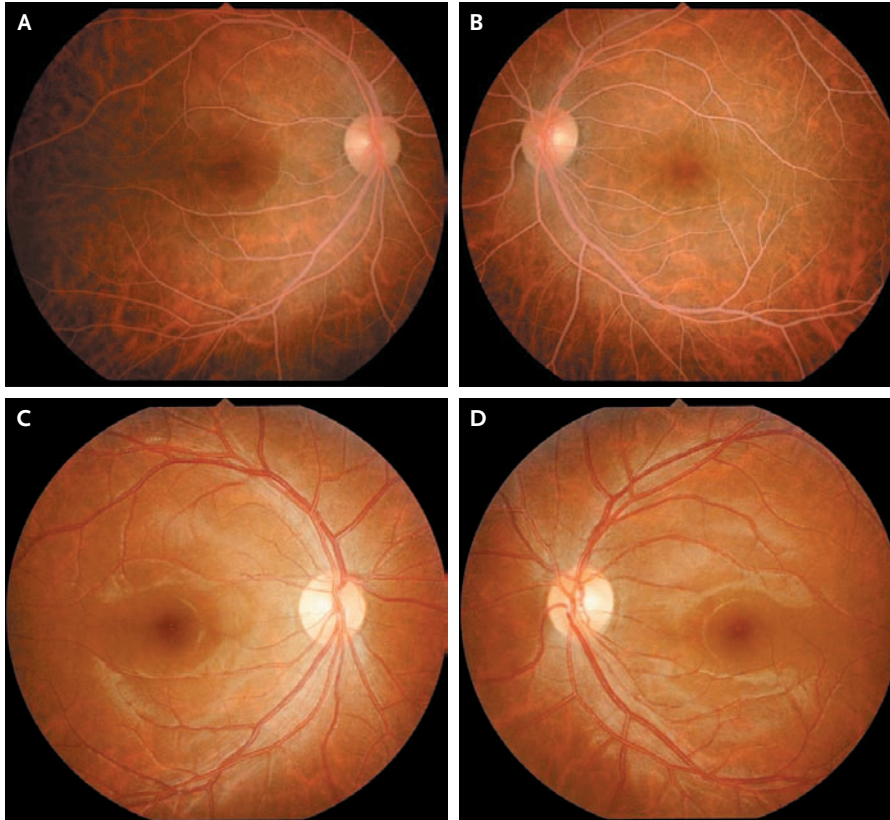


IMAGES IN CLINICAL MEDICINE

Lipemia Retinalis Associated
with Secondary Hyperlipidemia

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A 26-YEAR-OLD MAN WITH A 6-MONTH HISTORY OF TYPE 1 DIABETES MELLITUS PRESENTED WITH WEIGHT loss and poor glycemic control. Physical examination revealed no xanthomas; all vessels in the posterior pole and peripheral area of each eye had a creamy appearance (Panels A and B). The patient had no problems with his vision. Laboratory studies showed a fasting blood glucose level of 261 mg per deciliter (14.5 mmol per liter; normal range, 60 to 120 mg per deciliter [3.3 to 6.7 mmol per liter]), a total serum cholesterol level of 1086 mg per deciliter (28.1 mmol per liter; normal range, 120 to 220 mg per deciliter [3.1 to 5.7 mmol per liter]), and a triglyceride level of 11,929 mg per deciliter (134.7 mmol per liter; normal range, 50 to 149 mg per deciliter [0.6 to 1.7 mmol per liter]). A diagnosis of diabetic ketoacidosis and secondary hyperlipidemia was made. There was no family history of hyperlipoproteinemia. Intensive insulin therapy and supportive care were provided. One week after treatment, laboratory testing showed an improved lipid profile: total serum cholesterol level, 321 mg per deciliter (8.3 mmol per liter); triglyceride level, 114 mg per deciliter (1.3 mmol per liter); and fasting blood glucose level, 68 mg per deciliter (3.8 mmol per liter). Examination of the fundus showed a normal appearance of the retinal vessels (Panels C and D). Lipemia retinalis is thought to be directly correlated with the serum triglyceride level; typically, the retinal findings do not occur until the triglyceride level reaches 2500 mg per deciliter (28.2 mmol per liter).

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