

CASE STUDY C

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Lipid Management and Co-Morbidities

A 52-year old Japanese-American female underwent pituitary adenoma resection and radiation therapy. Subsequently, her menstrual periods became mildly irregular but required no hormonal treatment. In early 1996, she presented with difficulty walking and right-sided paresthesia. She was admitted to the hospital with a right hemiplegia, and dysarthria.

In their culture, the Japanese have a very low incidence of cardiovascular disease. This can cause some clinicians to overlook the possibility of cardiovascular disease. However, Japanese people of second and subsequent generations and nationals who become quickly "Americanized" tend to eat a more American diet, consuming less of the traditional Asian cuisine of vegetables, rice, and fish. When this happens, their risk for developing cardiovascular disease rises precipitously.

Initial CT scanning disclosed only persistent pituitary enlargement but repeat scanning 2 days later disclosed a left caudate infarction. Admission medications included only enalapril maleate for hypertension. Additional risk factors included Type II diabetes, obesity, a long smoking history, and familial hypertension and coronary disease.

Lab evaluation included a hemoglobin of 15.3, glycosuria, a normal chest x-ray, and an EKG suggesting an old inferior myocardial infarction. A lipid panel revealed a total cholesterol of 278, HDL of 27, triglycerides of 1150, and a TC/HDL ratio of 10.3. A repeat panel was confirmatory. Lipoprotein electrophoresis disclosed turbid serum with a Type IV pattern. She was 127% of her ideal body weight and was started on a 1,200 calorie, low carbohydrate diet, along with lisinopril and glyburide. Low-dose aspirin and lipid therapy were instituted.

The woman followed strict nutritional advice, lost more than 15 lbs., and required no further lisinopril and glyburide. Her CPK and liver functions remained normal. Within 3 months, her cholesterol dropped to 160 mg/dL, HDL increased to 49, LDL decreased to 93, and triglycerides dropped to 83 mg/dL. The TC/HDL ratio was 3.3 and LDL/HDL ratio decreased to 1.9.

With physical therapy and the passage of time, this patient's dysarthria has cleared and she is walking with a cane, although she continues to experience some weakness on the right side.

This is a woman who recently quit smoking and is perimenopausal in addition to having other significant risk factors. What else could be done with this patient to spare her the development of atherosclerosis at such an early age, as well as to save society the cost her cardiovascular event? In addition to the other treatment choices, should she be put on estrogen replacement therapy? Now that this patient's lipid values are down, will they remain stable over time without continued medication?

*Written by Jennifer Mason, RN
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Recommendations

The recommendations focus on what should have been done before, what should be done now, and issues for the future. Regarding before, assuming this woman joined a plan that is doing a good job, one would expect there should be risk-factor screening. However, screening in and of itself does not lead to change. One recommendation is to make certain that risk-factor screening gets translated into a plan of intervention. Clearly, this woman needed extensive education regarding her med-

ical history and family history, lifestyle modification, including diet and smoking cessation (which were addressed following her stroke); and exercise, which was not touched on in her case, other than physical therapy. In her premorbid state, there were tremendous opportunities for a partnership with the employer, the physician, and her managed care organization to assure that these risk factors were

addressed, which might have prevented the stroke from occurring. The next recommendation relates to the future. We recommend low-dose hormone replacement therapy for this perimenopausal woman with multiple risk factors. Also, she should have an assessment of myocardial function via echocardiogram to determine if there is wall motion abnormality; if so, a beta-blocker would be recommended. ■
