Sean’s Sugar Highs

HAART-takers, beware elevated blood glucose in ’99

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Laboratory analyses of blood and other medical measurements, which help health practitioners make diagnoses and detect toxic effects of medication, can also help people with HIV track their health. Larry Lyle, DO, a primary care osteopathic physician with a large HIV practice at San Diego’s Apogee Medical Group, analyzes the latest lab results of POZ founder Sean O. Strub.

Overall, Sean’s current lab results look encouraging, with viral load back down to only 501 and CD4s back up to 232—some two months after a brief drug holiday last summer. Most other values are normal, with the important exceptions of **glucose**, **triglycerides** and **cholesterol**, all elevated. Although these abnormalities are increasingly common in those on HAART, they should not be ignored. The elevated blood fats are cause for particular concern, since they may relate to accelerated heart disease. (For further discussion of blood fats, see “What This Means.”)

The slightly elevated glucose of 129 MG/DL might also be worrisome, but only if a fasting blood measurement. Since Sean can’t remember whether he had fasted before this blood was drawn—no eating or drinking (other than water) for the previous 12 hours—we can only discuss the theoretical possibilities here. (For accurate interpretation of both glucose and blood fats, all blood draws should be done after such a fast.)

If a fasting reading, this is slightly above the 126 level defined by the American Diabetes Association as potentially indicative of Type 2 diabetes, and would call for a repeated fasting measurement.

For anyone with at least two fasting glucose readings of 126 or higher, I would order a glycosylated hemoglobin (hemoglobin A1C). This blood test measures the percentage of molecules of hemoglobin (the iron-containing protein that transports oxygen) that have sugar molecules attached. This reflects average blood-sugar levels over the previous three to four months, providing an overall estimate of the body’s blood sugar control. Normal values for glycosylated hemoglobin are usually 3 percent to 6 percent of total hemoglobin. It’s important to obtain a baseline hemoglobin A1C so that the effectiveness of efforts to improve glucose metabolism can be judged.

If Sean’s repeat fasting glucose level is still above 126, I would check his drug list to see if

anything he’s taking is known to increase blood sugar. All protease inhibitors have this potential, as do 3TC (Epivir), megestrol (Megace, an appetite stimulant), human growth hormone (Serostim, an antiwasting drug) and many other meds. Since the response to any given drug is quite individual, it might be worth considering a different HAART combo or, where the option exists, eliminating (or substituting for) problematic drugs.

I would also advise Sean to look at both his diet and his exercise program. Eating regularly, eliminating concentrated sugars and increasing his fiber intake with plenty of whole grains and vegetables can help normalize bloodsugar. Since resistance (weight training) exercise improves the sensitivity of cells to insulin (thus helping to lower blood glucose), I’d also want Sean to do this more regularly—at least three times a week. Regular aerobic exercise—even just a brisk walk around his farm—would also help. And although his current testosterone readings are normal, I’d want to monitor them regularly, since men with abnormally low testosterone have decreased insulin sensitivity.

There are drugs that can increase insulin sensitivity, but they have the potential to cause liver toxicity and create interaction problems with antiretrovirals. For now, I’d prefer that Sean try nondrug approaches to improving his body’s handling of glucose. If that doesn’t solve the problem, then we might consider drugs that promote the production of insulin.
