SMART to START: A Little Learning

June 10, 2015 By Jay Vithalani

You've heard the Big News. The numbers are in--early. For the START (Strategic Timing of Antiretroviral Therapy) trial, that is. This is indeed a landmark study and it has, justly, been treated as such. (SMART, or Strategies for Management of Anti-Retroviral Therapy, was another important trial, early and mid-2000s.) The lede in *The New York Times*: "People with H.I.V. should be put on antiretroviral drugs as soon as they learn they are infected, federal health officials said Wednesday [May 27] as they announced that they were halting the largest ever clinical trial of early treatment because its benefits were already so clear."

http://www.nytimes.com/2015/05/28/health/hiv-treatment-should-start-with-diagnosis-us-health-officials-say.html

From the general to the personal: my (new) numbers are in--right on time.

Backing up a little: I started antiretroviral therapy just over two months ago, on April 1st. Almost ten years after seroconverting.

http://blogs.poz.com/jayvithalani/archives/2015/04/numbers_choices_casc.html

A few things, numerical and situational, I didn't mention or make explicit in that post:

(1) I knew a lot about, but did not undergo a course of, PEP ("post-exposure prophylaxis").

(2) ARS: I didn't really have the 'flu-like "acute retroviral syndrome" that often occurs in the weeks immediately following infection. There's a lot of research which shows that the duration and severity of ARS correlate strongly with HIV disease progression.

(3) I was diagnosed with acute infection very early--by myself. My first positive test result was in 2005 itself, in September. Antigen, not antibody, testing: Qualitative DNA-PCR. This was followed a few months *later* by ELISA and Western Blot.

(4) My “viral load set point” was less than 100 copies. The average viral set point is ~ 33,000 copies (taking into account viral load “assay variability”). The higher this plateau level, the quicker the disease progression, and vice versa.

(5) I was offered the option of getting on meds several times in the last decade. And insurance concerns played no role in my decision (decisions, rather) to abstain from treatment until now, and likewise played no role in my recent determination to begin ART.

OK, that’s a pretty rounded picture I think. All this, along with what I wrote ten weeks ago, is meant to explain and to justify my decision to delay ART. Each person, each “case,” is different, and I think I’ve made the right choices. Repeating myself though: “The natural question then: why did I choose to start ART now?”

Some of the important criteria, not arbitrary, that I kept in mind:

(1) My viral load was slowly inching upward, trend and slope unmistakable. My VL (over the last three test results) was consistently in the range of 5,000 copies. In other words, low-level viremia increasing. (More nerdiness: on a logarithmic scale, base 10, that’s an increase from 1.8 to 3.7).

(2) While my CD4 absolute counts are still in the 700s or higher, the CD4 percentage was declining--from 37% to 30% or just a bit higher. Still in the normal reference range but still a clinically significant decline.

(3) The CD4:CD8 ratio. In people with a healthy immune system, this is almost always >1. Until recently, mine was always so. However, in recent months it fell below 1, to 0.8. This is still “pretty good,” many people with HIV, even those who have been on ART for a long time, have a lower ratio. Nevertheless: the direction was clear (again, over three lab test results over nine months).

(4) Background inflammation. Not as “hot” a topic of research excitement and clinical questioning as it was, say, five years ago--but this just means that there is a consensus now. Even if the inflammatory markers--IL-6, D-Dimer, and so on--seem normal (as mine did), that does not mean that the insidious effects of inflammation aren’t present.

(5) And side effects. Like many people living with HIV, I was afraid of possible and unwelcome side effects of treatment. Mainly: psychiatric problems such as horribly vivid nightmares and “brain fog,” highly visible body fat redistribution, and long-lasting gastrointestinal issues.

What do I have to report after 10 weeks on Stribild? Well, side effects have been mild and transient (knock on wood); small and expected effect on renal function values. From AZT

monotherapy to integrase-inhibitor-based regimens, in a single pill and generally easy to tolerate: a treatment revolution in less than 30 years. As for inflammation, I can only assume that it's been smacked down (if it was ever even significantly "up"). The ratio has normalized--it's 1 again. The CD4 percentage is inching back upwards, to 35% and (I hope) above. And my viral load is undetectable, below 20 copies. Just what the doctor (literally) ordered.

Alexander Pope famously wrote that "A little learning is a dang'rous thing." But he continues: "Drink deep, or taste not the Pierian spring: / There shallow draughts intoxicate the brain, / And drinking largely sobers us again."

I am no expert on HIV research or clinical management; in that sense I'm certainly guilty of having only "A little learning." That having been said, my temperament is research-oriented: I have tried to drink deeply (using Pope's metaphor) as a layman, and to let that nerdy water be a sobering and not intoxicating influence. I've had the luck and luxury of time on my side, and the good fortune as well of having access to great health care and amazing sources of information. Harnessing all that, I'm happy to have arrived at this recent determination: it was smart to start.

JV
