NIH NATIONAL CANCER INSTITUTE

Stopping Multiple Myeloma in Its Tracks

Valerie Winston is thankful that she went to her doctor for a routine physical examination in 2009. The results of standard tests indicated that she was at risk for multiple myeloma. Thanks to a clinical trial testing a combination of therapies for individuals like Valerie, she never had to experience cancer's full impact.

Valerie Winston
Smoldering Myeloma Survivor, Maryland

Multiple myeloma will be diagnosed in approximately 30,280 Americans in 2017, and an estimated 12,590 of them will die from it. Multiple myeloma is a cancer of plasma cells—cells in the immune system that help the body fight infection. Abnormal plasma cells make proteins called M proteins, which are abnormal antibodies that build up in the bone marrow and can damage the body. An M protein is what Valerie's doctors detected.

Because Valerie had low levels of the M protein and no other symptoms of cancer, she was diagnosed with a condition called monoclonal gammopathy of undetermined significance (MGUS). MGUS is not cancer, but, in some cases, MGUS can progress to multiple myeloma. Valerie's initial elation that the condition had been caught early dimmed when her doctors told her that they would need to "watch and wait" to see if cancer developed before they could treat her.

Valerie was monitored, and, eventually, she progressed to a disease called smoldering myeloma, which is a stage between MGUS and multiple myeloma where myeloma cells are present but not causing bone or organ damage. Now, she was deemed at high risk for progression to full-blown multiple myeloma.

Because more than 90% of patients with high-risk smoldering myeloma develop multiple myeloma within 2–5 years, researchers are working to intervene in this process. One way is by testing drugs against high-risk smoldering myeloma that have been successful against multiple myeloma. Impatient to do something beyond "watching and waiting," Valerie found a clinical

trial at NCI. “I went into the trial with the attitude that, if it doesn’t help me, then my participation will help someone else in the future,” she said.

The trial Valerie participated in tested lenalidomide (Revlimid®), dexamethasone, and carfilzomib (Kyprolis®), three drugs that are already approved by the Food and Drug Administration to treat multiple myeloma. Researchers wanted to see if the combination of these drugs would provide a safe and effective treatment for patients with high-risk smoldering myeloma.

Valerie began showing good results by the 3rd month of treatment, and, by the 9th month, doctors proclaimed she had experienced a complete response. In fact, all 18 patients in the trial responded to the treatment. Although it was a small study, these results provide evidence to support larger trials in the future that will determine more definitively whether the benefits of this experimental treatment outweigh the harms.

Despite having some side effects from treatment, Valerie is grateful to have participated in the trial. She is now a messenger about the importance of research to family, friends, and anyone who will listen. “I talk to my relatives and others about this,” she said. “We all have a part to do. I feel great about being part of this progress.”

Posted: September 21, 2017
