Transcript Details

This is a transcript of an educational program. Details about the program and additional media formats for the program are accessible by visiting: https://reachmd.com/programs/project-oncology/from-mgus-to-multiple-myeloma-understanding-the-progression-of-precursor-diseases/26584/

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From MGUS to Multiple Myeloma: Understanding the Progression of Precursor Diseases

Announcer Intro

You're listening to *Project Oncology* on ReachMD. On this episode, we'll hear from Dr. Elizabeth O'Donnell, who's the Director of Early Detection and Prevention at Dana-Farber and an Assistant Professor of Medicine at Harvard Medical School. She'll be discussing multiple myeloma precursor diseases. Here's Dr. O'Donnell now.

Dr. O'Donnell:

So multiple myeloma is a malignancy of the plasma cells, which are a type of white blood cell. Our white blood cells help us fight infection. And in this specific case, we know that we can detect clonal proteins. So plasma cells produce proteins that we call antibodies or immunoglobulins. They should all be different. But when we find populations of clone, it signals to us that patients have a plasma cell disorder. And the spectrum of these disorders ranges from the cancer multiple myeloma—which is symptomatic and is defined by specific criteria, including bone tumors, high calcium, kidney dysfunction, and anemia—and short of that, we have something called monoclonal gammopathy of undetermined significance, which is a benign condition that affects anywhere from 3–10 percent of the population starting at age 50. About 3 percent of the population have MGUS, by age 80, about 7 percent does, and about 1 percent of people per year will progress to multiple myeloma who have MGUS.

Smoldering myeloma is a little more advanced stage along this continuum of disorders where patients may have 3 g/dL of measurable monoclonal protein or greater than 10 percent plasma cells in the bone marrow. For these conditions that don't have the symptoms that I mentioned, we say that these are precursor conditions, meaning that they are in the spectrum of disorders that lead up to a potential multiple myeloma. With increasing burden of measurable monoclonal protein—which reflects an increased burden of clonal plasma cells—we see an increased risk of progression.

So we know that all multiple myeloma is preceded by one of these precursor conditions. Now we don't screen for precursor conditions or for multiple myeloma, and so when we meet someone with newly diagnosed multiple myeloma, more often than not, that's a de novo, or new, diagnosis, but we appreciate that at some time prior to that diagnosis, they passed through those stages of MGUS and smoldering myeloma to arrive at the symptomatic condition. We don't necessarily treat these precursor conditions, but intuitively, it makes a lot of sense that perhaps we should be studying and potentially intervening if we can identify patients who are greatest risk of developing symptomatic disease.

Announcer Close

That was Dr. Elizabeth O'Donnell discussing precursor diseases of multiple myeloma. To access this and other episodes in our series, visit *Project Oncology* on ReachMD dot com, where you can Be Part of the Knowledge. Thanks for listening!