What is the difference between smoldering myeloma and multiple myeloma?

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Hi, my name is Dr. Joshua Richter. I am a Clinical Assistant Professor at Rutgers and practicing hematologist/oncologist at the John Theurer Cancer Center at the Hackensack University Medical Center. My area of focus is multiple myeloma.

One question that I am frequently asked is, what is the difference between smoldering myeloma and multiple myeloma? Now, for years, the classical definition of myeloma in general has been patients who have greater than either 3 grams of paraprotein in the blood and/or greater than 10% clonal plasma cells in the bone marrow. When either of these situations is met, the patient has multiple myeloma. They only go from smoldering to symptomatic myeloma when they have one of the CRAB symptoms. CRAB stands for: C high calcium, R renal dysfunction, A anemia, and B bony lytic lesions.

Now, this has been the definition for many years that has separated smoldering myeloma from symptomatic multiple myeloma. However, it has been noted for some time that there are certain patients who are so likely to progress from smoldering to symptomatic that they ought to be treated. In the Lancet Oncology in 2014, S. Vincent Rajkumar, et al., published a paper redefining what is smoldering and what is symptomatic myeloma, and a new group of patients emerged that were classically smoldering and now fit criteria to be treated. The CRAB criteria have been updated to what we call a SLiM CRAB:

- **S** stands for 60%: those patients who have 60% or more clonal plasma cells in the bone marrow were so likely to progress that they ought to be treated and are now classified as symptomatic myeloma
- **Li** stands for light chains: those patients with a kappa-to-lambda or lambda-to-kappa ratio of greater than 100 are so likely to progress to needing treatment that they should be treated at the time of diagnosis
- **M** stands for MRI: patients with more than one focal lesion on MRI now have transitioned from smoldering myeloma to symptomatic disease warranting therapy

So, CRAB has become SLiM CRAB and has helped us to better understand those patients who need therapy and those who do not. Thank you.