Effect of follow-up of MGUS on survival in patients with multiple myeloma

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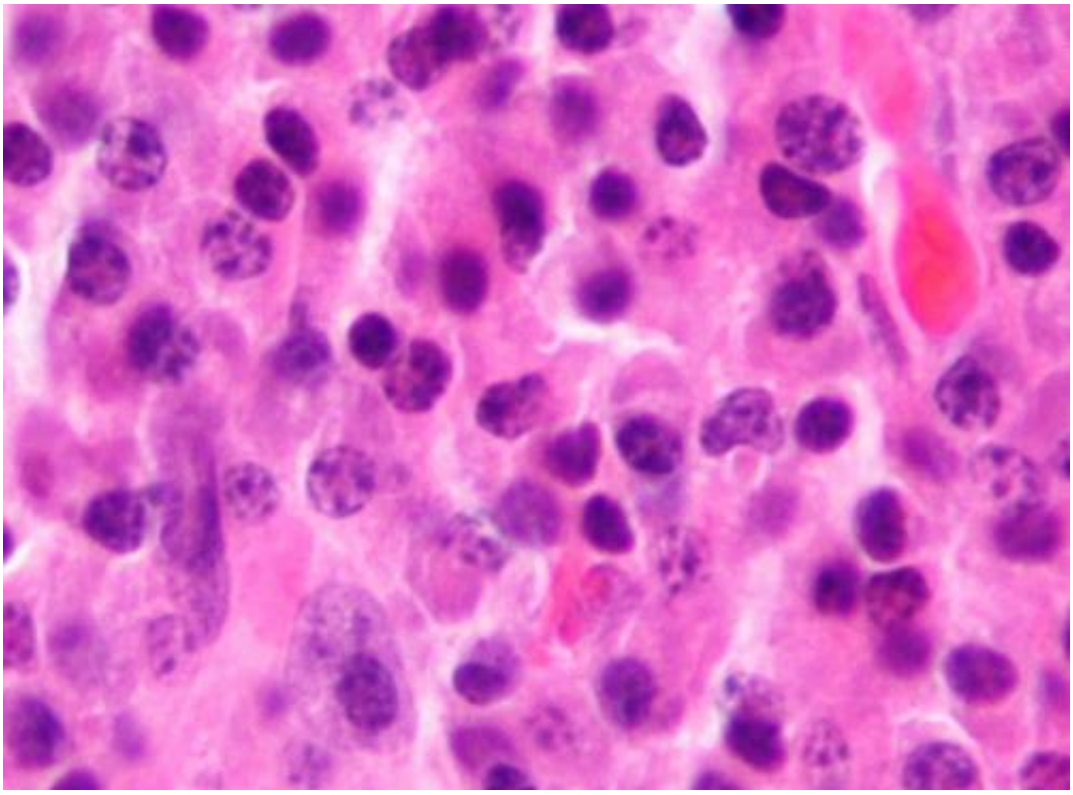

Micrograph of a plasmacytoma, the histologic correlate of multiple myeloma. H&E stain. Credit: Wikipedia/CC BY-SA 3.0

Patients with multiple myeloma (MM) appear to have better survival if they are found to have monoclonal gammopathy of undetermined significance (MGUS) first, the state that precedes MM and which is typically diagnosed as part of a medical workup for another reason,

according to a study published online by *JAMA Oncology*.

Most MGUS cases are never diagnosed; MGUS is characterized by a detectable M protein without evidence for end-organ damage or other related plasma cell or lymphoproliferative disorders. Only a small proportion of MGUS progresses to malignancy, with the annual risk of progression to MM or other related diseases being 0.5 percent to 1 percent on average. Current guidelines recommend, depending on a patient's risk score, lifelong monitoring of people with MGUS to detect progression to MM or related disorders, according to the study background.

Sigurdur Y. Kristinsson, M.D., Ph.D., of the University of Iceland, and coauthors estimated the impact of prior knowledge of MGUS diagnosis and coexisting illnesses on MM survival. The study included all patients diagnosed with MM in Sweden (n=14,798) from 1976 to 2005; 394 patients (2.7 percent) had previously diagnosed MGUS.

Study results show that patients with prior knowledge of MGUS had better overall survival (median 2.8 years) than patients with MM who didn't know when they had MGUS (median survival 2.1 years), although patients with prior knowledge of their MGUS status had more coexisting illnesses. Low M-protein concentration at MGUS diagnosis was associated with poorer MM survival among patients with prior knowledge of MGUS.

The authors speculate the reasons for the prolonged survival in their study is that patients with MGUS are evaluated more often for signs of progression to MM and may be diagnosed and started on therapy for myeloma at an earlier stage.

"Our results reflect the importance of lifelong follow-up for individuals diagnosed as having MGUS, independent of risk score, and highlight the

need for better risk models based on the biology of the disease. Patients should receive balanced information stressing not only the overall very low risk of progression to malignant neoplasm but also the symptoms that could signal such development and the need to consult their physician," the study concludes.

In a related editorial, Robert A. Kyle, M.D., and S. Vincent Rajkumar, M.D., of the Mayo Clinic, Rochester, Minn., write: "It cannot be determined whether MM patients with a known MGUS in the Icelandic study were followed more closely than those in whom a MGUS was not recognized, and hence it is difficult to attribute a causal relationship between follow-up and better prognosis."

"It is interesting to note that patients with a lower M-protein concentration were found to have shorter survival following the diagnosis of MM. However, as noted, it is not possible from the present study to determine any causal relationship between close follow-up or lack thereof of these patients and outcome of MM," they continue.

"We also need studies to address the question of the possible merits of screening for the presence of MGUS in a normal, older population. The cost, inconvenience and anxiety produced by the awareness of potential progression of a recognized MGUS, as well as the low absolute risk of progression (0.5 percent - 1 percent), probably override the possible potential benefit of screening for MGUS," the editorial notes.

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