

Adopting the new iStopMM-based criteria for light-chain monoclonal gammopathy of undetermined significance: an ongoing debate

Authors

Dor Shpitzer,¹ Yael C. Cohen,² Tamir Shragai,² Guy Melamed,³ Anat Reiner-Benaim^{1#} and Irit Avivi^{2#}

¹Department of Epidemiology, Biostatistics and Community Health Sciences, School of Public Health, Faculty of Health Sciences, Ben Gurion University of the Negev, Beer Sheva; ²Tel Aviv Sourasky (Ichilov) Medical Center and Sackler Faculty of Medicine, Tel Aviv University, Tel Aviv and ³Kahn Sagol Maccabi Research and Innovation Center, Maccabi Healthcare Services, Tel Aviv, Israel

#ARB and IA contributed equally as senior authors.

Correspondence:

D. SHPITZER - shpitzerd@gmail.com

<https://doi.org/10.3324/haematol.2024.286239>

Received: July 7, 2024.

Accepted: September 3, 2024.

Early view: September 12, 2024.

©2025 Ferrata Storti Foundation

Published under a CC BY-NC license 

Supplementary data

Table 1S. Univariate analysis for factors associated with progression to Multiple Myeloma

Characteristic	N	HR ¹	95% CI ¹	p-value
Study cohort	5,708			
Control cohort		—	—	
IMWG definition		1.42	0.66, 3.09	0.4
iStopMM definition		15.6	6.96, 35.0	<0.001
Age > 70	5,708	2.83	1.50, 5.34	0.001
Sex	5,708			
Female		—	—	
Male		0.74	0.39, 1.39	0.4
Kappa dominant	5,708	2.25	1.17, 4.33	0.015
Lambda dominant	5,708	7.26	1.00, 52.3	0.05
Immunoparesis	4,580			
No immunoparesis		—	—	
One chain immunoparesis		1.25	0.44, 3.55	0.7
Two chains immunoparesis		2.78	0.38, 20.4	0.3
IgG immunoparesis	4,646	2.66	0.64, 11.1	0.2
IgA immunoparesis	5,424	3.73	1.15, 12.1	0.028
IgM immunoparesis	5,268	0.87	0.27, 2.82	0.8
Osteoporosis	5,708	1.77	0.93, 3.36	0.080

¹HR = Hazard Ratio, CI = Confidence Interval

IgA, Immunoglobulin A; IgG, Immunoglobulin G; IgM, Immunoglobulin M; IMWG, International Myeloma Working Group

Table 2S. Univariate analysis for factors associated with progression of chronic kidney disease

Characteristic	N	HR ¹	95% CI ¹	p-value
Study cohort	5,668			
Control cohort		—	—	
IMWG definition		1.23	0.96, 1.57	0.10
iStopMM definition		1.65	0.88, 3.09	0.12
Age > 70 (years)	5,668	1.91	1.57, 2.32	<0.001
Sex	5,668			
Female		—	—	
Male		1.23	1.01, 1.49	0.037
Kappa dominant	5,668	1.44	1.13, 1.83	0.003
Lambda dominant	5,668	0.37	0.14, 1.28	0.46
Immunoparesis	4,546			
No immunoparesis		—	—	
One chain immunoparesis		1.47	1.06, 2.02	0.019
Two chains immunoparesis		1.66	0.74, 3.72	0.2
IgG immunoparesis	4,611	2.02	1.20, 3.38	0.008
IgA immunoparesis	5,384	1.78	1.04, 3.03	0.035
IgM immunoparesis	5,229	1.49	1.09, 2.02	0.011
Hypertension	5,668	1.29	1.05, 1.57	0.014
Diabetes	5,668	1.21	0.98, 1.48	0.073

¹HR = Hazard Ratio, CI = Confidence Interval

IgA, Immunoglobulin A; IgG, Immunoglobulin G; IgM, Immunoglobulin M; IMWG, International Myeloma Working Group

Figure1S. Cohort of patients included in the study.

