

Domain	Prognostic factor	Study	Result (hazard ratio, 95% confidence intervals); p-value	
			Univariate analysis	Multivariate analysis
Autonomic rating scales	Clinical Global Impression dysautonomia score	Bensimon 2009	1.25 (1.11, 1.41); p=0.0003	1.41 (1.19, 1.67); p<0.0001
	Composite autonomic scoring scale (CASS)	Coon 2015	1.05 (1.01, 1.10); p=0.015	1.07 (1.02, 1.11); p=0.002
	Time to CASS >6 in less than 3 years after disease onset	Figueroa 2014	2.9 (1.07, 9.18); p=0.03	2.8 (1.01, 9.26); p=0.047
Dysautonomia present at MSA onset		Coon 2015	1.07 (0.9, 1.28); p=0.44	NA
		Watanabe 2002	p = 0.92	NA
		Kim 2011	NS	NA
		Roncevic 2014	P=0.5	NA
		Sakushima 2015	1.66 (1.09, 2.53); p=0.018	1.50 (0.98, 2.3); p=0.064
Specified time of onset of dysautonomia	Within 2 years of disease onset	O'Sullivan 2008	1.23 (0.8, 1.9); p=0.35	6.0 (3.1, 11.7); p<0.0001
	Within 2.5 years of disease onset	Tada 2007	NA	3.4 (1.61, 7.15); p<0.01
	Within 1 year of disease onset	Coon 2015	1.24 (1.04, 1.49); p=0.016	NA
Dysautonomia where timing within the MSA course was not specified		Ben-Shlomo 1997	1 (0.8, 1.3); p=0.04	NA
Severe vs mild dysautonomia	Severe vs mild or no dysautonomia at diagnosis	Low 2015	2.3 yrs difference in median survival; p=0.021	
	Severe vs mild dysautonomia at diagnosis	Coon 2015	3.5 yrs difference in median survival	
Bladder symptoms	Presence of bladder symptoms	Coon 2015	1.92 (1.61, 2.30); p<0.0001	1.96 (1.61, 2.38); p<0.0001
	Urinary incontinence or retention within 1 year of disease onset	Figueroa 2014	1.27 (0.64, 2.45); p=0.49	1.21 (0.61, 2.35); p=0.58
	Presence of urinary incontinence	Low 2015	1.19 (0.60, 2.36); p=0.82	NA
		Wenning 2013	NA	2.45 (1.19, 5.04); p=0.015
	Presence of urinary incontinence at 1 st consultation	Krim 2007	5.66 (1.6, 19.9); p=0.007	NS
	Presence of incomplete bladder emptying	Low 2015	0.92 (0.53, 1.61); p=0.86	NA
		Wenning 2013	NA	2.10 (1.02, 4.30); p=0.044
	Urinary catheterisation within 3 years of disease onset	Coon 2015	2.19 (1.83, 2.63); p<0.0001	1.67 (1.19, 2.35); p=0.003
Figueroa 2014		4.81 (1.57, 16.25); p=0.006	4.42 (1.29, 16.1); p=0.02	
Orthostatic hypotension	Orthostatic hypotension within 1 year of disease onset	Coon 2015	Pooled HR: 1.24 (1.04, 1.49); I ² =0%; p=0.02	Pooled HR: 1.29 (1.07, 1.56); I ² =0%; p=0.009
		Figueroa 2014		

Sweat testing	Abnormal thermoregulatory sweat testing (TST)	Coon 2015	1.28 (0.72, 2.27); p=0.40	NA
	40% anhidrosis on TST within 3 years of disease onset	Figuroa 2014	1.29 (0.44, 3.95); p=0.64	1.08 (0.27, 4.26); p=0.90
Motor and autonomic features	Combined motor and autonomic symptoms within 3 years	Roncevic 2014	2.65 (1.42, 4.93); p=0.0022	NA
		Watanabe 2002	3 yrs difference in median survival	
Stridor	Presence	Tada 2007	NA	1.21 (0.63, 2.34); p=0.57
		Coon 2015	1.38 (1.14, 1.68); p=0.001	NA
		Silber 2000	Reduced survival after 6 yrs	NA
		Lalich 2013	3.1 yrs difference median survival; p=0.67	
	Presence at study entry	Krim 2007	3.64 (1.45, 9.14); p=0.006	NS
	Untreated stridor compared to no stridor	Yamaguchi 2002	NA	3.0 (1.63, 5.53); p=0.0004
	Treated stridor compared to untreated		NA	0.15 (0.043, 0.51); p=0.0024
Tracheostomy		Tada 2007	NA	0.21 (0.08, 0.56); p<0.01
Parkinsonian symptoms	Parkinsonism as presenting feature	Schrag 2008	NA	0.68 (0.43, 1.05); p=0.08
	Initial motor symptom	Coon 2015	0.93 (0.78, 1.13); p=0.44	NA
	Parkinsonian features	Ben-Shlomo 1997	0.9 (0.7, 1.3); p=0.41	NA
Babinski sign		Low 2015	0.95 (0.63, 1.42); p=0.86	NA
		Ben-Shlomo 1997	1.0 (0.8, 1.3); p=1.0	NA
Serum urate level	Mean urate level >6.9 mg/dl compared to 2.9 mg/dl	Kim 2011	0.77 (0.28, 2.13); p=0.61	NA

Supplementary Table 5. Summary of prognostic factors relating to symptoms and signs in MSA. CASS = composite autonomic scoring scale; HR = hazard ratio; NA = not applicable; NNIPPS = Neuroprotection and Natural History in Parkinson Plus syndromes; NS = not significant; TST = thermoregulatory sweat testing; yrs = years