

Serum periostin levels in mycosis fungoides: associations with clinical subtype and disease stage

Ramazan Çetin, Müge Güler Özden

Department of Dermatology, Faculty of Medicine, Ondokuz Mayıs University, Samsun, Turkey

doi: 10.4081/dr.2026.10904

SUPPLEMENTARY MATERIAL

Supplementary Table 1. Demographic, clinical, and laboratory characteristics of patients with MF and healthy controls.

Patients	Age	Gender	Clinical stage	TNMB stage	Age at MF onset	MF duration (years)	LDH (U/L)	Periostin (ng/mL)
1	62	F	Plaque	2a	53	9	235	93,2*
2	64	F	Patch	2a	34	30	231	42,3
3	43	M	Patch	1b	39	4	132	32,8
4	27	F	Patch	1a	26	1	182	18,2
5	35	F	Patch	2a	34	1	220	12,6
6	68	F	Patch	2a	64	4	178	27,5
7	63	M	Plaque	2a	62	1	295	15,9
8	57	M	Patch	1a	55	2	171	9,4
9	59	F	Patch	1a	58	1	182	24,7
10	21	M	Patch	1b	13	8	199	16,4
11	47	M	Plaque	1b	46	1	240	30,9
12	29	M	Patch	1a	21	8	170	37,6
13	21	F	Tumor	2b	20	1	240	21,1
14	57	M	Patch	1b	52	5	204	4,7
15	32	M	Patch	1a	31	1	183	2,9
16	71	M	Patch	2a	69	2	200	12,6
17	58	M	Plaque	2a	48	10	216	8,4
18	63	M	Patch	1b	53	10	220	7,9
19	60	F	Patch	1a	59	1	210	30,7
20	43	F	Plaque	2a	36	7	165	16,4
21	60	F	Patch	2a	59	1	313	8,4
22	76	M	Tumor	2b	71	5	260	5,3

23	59	M	Patch	2a	58	1	238	8,9
24	46	M	Tumor	2b	34	12	231	3,3
25	67	M	Tumor	2b	52	15	215	4,7
26	55	M	Patch	1b	45	10	146	2,3
27	80	M	Patch	1b	79	1	235	10,3
28	69	M	Plaque	1b	68	1	220	7,9
29	58	M	Patch	1b	53	5	178	16,8
30	64	M	Tumor	2b	34	30	176	6,6
31	73	F	Patch	1b	63	10	169	8,4
32	72	M	Patch	1b	70	2	175	17,7
33	43	M	Plaque	2a	29	14	207	25,6
34	64	M	Tumor	4a	34	30	222	16,8
35	75	F	Patch	1b	68	7	233	13,1
36	66	M	Patch	1b	64	2	165	4,3
37	23	F	Plaque	2a	20	3	180	14,5
38	58	F	Patch	1a	54	4	208	13,1
39	54	F	Tumor	2b	39	15	189	3,3
40	40	M	Tumor	2b	28	12	217	4,8

Controls	Age	Gender	Periostin (ng/mL)
1	49	M	4,8
2	45	F	10,8
3	59	M	14
4	55	F	9
5	55	M	2,9
6	26	M	16,4
7	42	M	8
8	46	M	3,9
9	90	M	9,9
10	57	F	2,5
11	32	FE	2,9
12	43	F	6,6
13	29	F	5,6
14	48	F	6,6
15	34	M	4,3
16	66	M	18,7
17	58	M	9
18	50	M	1,6
19	36	M	5,3
20	48	M	7,1
21	68	M	2,5
22	62	M	5,3
23	63	M	4,3
24	52	M	3,4
25	62	M	4,7

26	36	F	13,6
27	58	M	6,6
28	36	M	3,3
29	47	M	2,5
30	48	M	3,9
31	55	F	10,3
32	44	M	1,6
33	60	F	0,6
34	55	M	9,4
35	82	F	8
36	57	F	3,9
37	51	F	7
38	68	M	1,6
39	36	M	3,9
40	73	F	3,4

MF, mycosis fungoides; TNMB, tumor-node-metastasis-blood; LDH, lactate dehydrogenase.

*After data screening, one extreme periostin value (93.2 ng/mL) in the plaque subgroup was excluded because of its disproportionate influence on distribution-based estimates. Accordingly, periostin-related analyses were conducted on 39 MF patients and 40 controls.

Supplementary Table 2. Sensitivity and specificity values of serum periostin at different cut-off points for determining the optimal threshold by Youden index.

Cut-off (>)	Sensitivity (%)	95% CI (sensitivity)	Specificity (%)	95% CI (specificity)	Likelihood ratio
2.700	97.44	86.82 – 99.87	17.50	8.745 – 31.95	1.181
3.100	94.87	83.11 – 99.09	22.50	12.32 – 37.50	1.224
3.350	89.74	76.42 – 95.94	25.00	14.19 – 40.19	1.197
3.650	89.74	76.42 – 95.94	30.00	18.07 – 45.43	1.282
4.100	89.74	76.42 – 95.94	40.00	26.35 – 55.40	1.496
4.500	87.18	73.29 – 94.40	45.00	30.71 – 60.17	1.585
4.750	82.05	67.33 – 91.02	47.50	32.94 – 62.50	1.563
5.050	79.49	64.47 – 89.22	50.00	35.20 – 64.80	1.590
5.450	76.92	61.66 – 87.35	55.00	39.83 – 69.29	1.709
6.100	76.92	61.66 – 87.35	57.50	42.20 – 71.49	1.810
6.800	74.36	58.92 – 85.43	65.00	49.51 – 77.87	2.125
7.050	74.36	58.92 – 85.43	67.50	52.02 – 79.92	2.288
7.500*	74.36	58.92 – 85.43	70.00	54.57 – 81.93	2.479
7.950	69.23	53.58 – 81.43	70.00	54.57 – 81.93	2.308
8.200	69.23	53.58 – 81.43	75.00	59.81 – 85.81	2.769
8.650	61.54	45.90 – 75.11	75.00	59.81 – 85.81	2.462
8.950	58.97	43.42 – 72.92	75.00	59.81 – 85.81	2.359
9.200	58.97	43.42 – 72.92	80.00	65.24 – 89.50	2.949
9.650	56.41	40.98 – 70.70	82.50	68.05 – 91.25	3.223
10.10	56.41	40.98 – 70.70	85.00	70.93 – 92.94	3.761
10.55	53.85	38.57 – 68.43	87.50	73.89 – 94.54	4.308
11.70	53.85	38.57 – 68.43	90.00	76.95 – 96.04	5.385
12.85	48.72	33.87 – 63.80	90.00	76.95 – 96.04	4.872

13.35	43.59	29.30 – 59.02	90.00	76.95 – 96.04	4.359
13.80	43.59	29.30 – 59.02	92.50	80.14 – 97.42	5.812
14.25	43.59	29.30 – 59.02	95.00	83.50 – 99.11	8.718
15.20	41.03	27.08 – 56.58	95.00	83.50 – 99.11	8.205
16.15	38.46	24.89 – 54.10	95.00	83.50 – 99.11	7.692
16.60	33.33	20.63 – 49.02	97.50	87.12 – 99.87	13.33
17.25	28.21	16.54 – 43.78	97.50	87.12 – 99.87	11.28
17.95	25.64	14.57 – 41.08	97.50	87.12 – 99.87	10.26
18.45	23.08	12.65 – 38.34	97.50	87.12 – 99.87	9.231

CI, confidence interval.

*Indicates the optimal cut-off value based on the highest Youden index.

Supplementary Table 3. Sensitivity analysis of the main MF vs. control comparison.

Comparison of the full 40-patient MF cohort and the primary analysis after exclusion of the extreme periostin value.

Analysis set	MF patients, n	Controls, n	MF median periostin (ng/mL)	Control median periostin (ng/mL)	MF vs. control p-value	AUC (95% CI)	Optimal cut-off (ng/mL)	Sensitivity (%)	Specificity (%)
Sensitivity analysis (full cohort; extreme value included)	40	40	12.85	5.05	<0.001	0.78 (0.67-0.87)	7.9	75.0	70.7
Primary analysis (extreme value excluded)	39	40	12.60	5.05	<0.0001	0.773 (0.670-0.876)	7.50	74.36	70.00

MF, mycosis fungoides; AUC, area under the curve.

The full-cohort metrics are based on the original 40-patient MF analysis including the extreme periostin value (93.2 ng/mL) in the plaque clinical subtype. The primary analysis corresponds to the revised manuscript after exclusion of this value from periostin-related analyses. This supplementary comparison is provided to show that the main MF-vs.-control association and overall discriminatory performance remained similar.