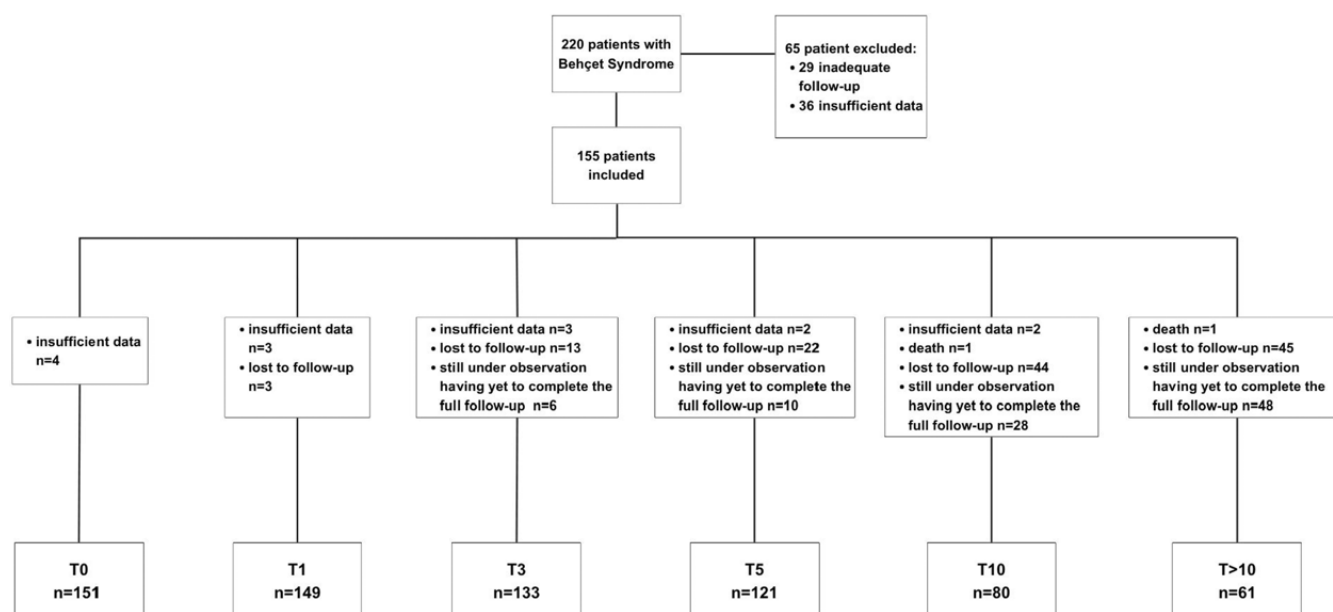




Supplementary Fig. S1. Flow chart of BS patients enrolled in this study.

Supplementary Table S1. Comparisons of demographics, manifestations, treatments and BODI scores at baseline (T0) according to patients' retentions at T10.

	Patients retained at T10 n= 80	Patients not retained at T10 n= 75	p-value
Demographics			
Male sex	35/80 (43.8%)	34/75 (45.3%)	0.971
Age at diagnosis, years	34 [25.8-43.3]; n=78	38 [25.0-50.0]; n=75	0.435
Italians	68/80 (85.0%)	58/75 (77.3%)	0.309
Diagnostic delay, years	2 [0-8.3]; n=74	2 [0-6]; n=71	0.828
HLA-B*51 presence	40/66 (60.6%)	45/69 (65.2%)	0.707
Manifestations at baseline (T0)			
Oral ulcers	77/80 (96.3%)	71/75 (94.7%)	0.713
Genital ulcers	40/80 (50.0%)	37/75 (49.3%)	0.934
Skin	45/80 (56.3%)	45/75 (60.0%)	0.757
Ocular	34/80 (42.5%)	27/75 (36.0%)	0.429
Musculoskeletal	33/80 (41.3%)	33/75 (44.0%)	0.854
Gastrointestinal	7/80 (8.8%)	10/75 (13.3%)	0.512
Neurological	8/80 (10.0%)	13/75 (17.3%)	0.272
Vascular	13/80 (16.3%)	12/75 (16.0%)	0.966
Cardiopulmonary	4/80 (5.0%)	6/75 (8.0%)	0.524
Treatment at baseline (T0)			
Glucocorticoids	49/72 (68.1%)	43/68 (63.2%)	0.673
Colchicine	34/73 (46.6%)	37/68 (54.4%)	0.446
Apremilast	1/73 (1.4%)	2/69 (2.9%)	0.612
cs-DMARDs	27/73 (37.0%)	17/67 (25.4%)	0.195
b-DMARDs	6/73 (8.2%)	6/69 (8.7%)	0.919
Damage			
BODI T0	0 [0-1; min 0, max 7]; n=78	0 [0-1; min 0, max 4]; n=73	0.927
BODI T0≥ 1	24/78 (30.8%)	23/73 (31.5%)	0.922

Continuous variables are expressed as median [1st-3rd quartile] and compared using Mann-Whitney test; categorical variables are expressed as n/number of available data (%) and compared using Chi-square test with Yates' correction or Fisher's exact test.

Supplementary Table S2. Comparisons of demographics, cumulative manifestations and treatments according to BODI score at T1 (n=149), T3 (n=133), T5 (n=121), T>10 (n= 61).

	BODI T1=0 n=98	BODI T1≥1 N=51	p-value	BODI T3=0 n= 81	BODI T3 ≥1 n=52	p-value	BODI T5=0 n= 69	BODI T5≥1 n=52	p-value	BODI T>10=0 n= 20	BODI T>10≥1 n=41	p-value
Demographics												
Male sex	39/98 (39.8%)	27/51 (52.9%)	0.174	30/81 (37.0%)	26/52 (50.0%)	0.194	27/69 (39.1%)	27/52 (51.9%)	0.224	9/20 (45.0%)	24/41 (58.5%)	0.470
Age at diagnosis, years	33 [24-42]; n=87	41 [28-52]; n=50	0.002	32 [24-42]; n=80	39 [27-52]; n=51	0.030	31 [23-42]; n=68	40 [29-52]; n=51	0.010	32 [23-40]; n=20	38 [28-44]; n=41	0.202
Diagnostic delay, years	3 [0-7]; n=92	2 [0-6]; n=48	0.155	3 [0-7]; n=77	2 [0-8]; n=49	0.813	3 [0-6]; n=66	2 [0-8]; n=48	0.773	2 [0-4]; n=20	2 [0-8]; n=38	0.641
Italian origin	86/98 (87.8%)	38/51 (74.5%)	0.069	73/81 (90.1%)	40/52 (76.9%)	0.067	63/69 (91.3%)	40/52 (76.9%)	0.052	17/20 (85.0%)	33/41 (80.5%)	1.000
HLA-B*51 presence	58/89 (65.2%)	26/43 (60.5%)	0.739	44/72 (61.1%)	26/44 (59.1%)	0.984	37/62 (59.7%)	26/44 (59.1%)	0.952	9/17 (52.9%)	19/31 (61.3%)	0.799
Cumulative manifestations												
Oral ulcers	96/98 (98.0%)	49/51 (96.1%)	0.607	79/81 (97.5%)	50/52 (96.2%)	0.644	68/69 (98.6%)	51/52 (98.1%)	0.840	20/20 (100%)	40/41 (97.6%)	1.000
Genital ulcers	59/98 (60.2%)	23/51 (45.1%)	0.113	51/81 (63.0%)	22/52 (42.3%)	0.031	42/69 (60.9%)	26/52 (50.0%)	0.314	13/20 (65.0%)	20/41 (48.8%)	0.358
Skin	69/98 (70.4%)	34/51 (66.7%)	0.778	56/81 (69.1%)	36/52 (69.2%)	0.991	49/69 (71.0%)	35/52 (67.3%)	0.811	14/20 (70.0%)	28/41 (68.3%)	0.893
Ocular	34/98 (34.7%)	28/51 (54.9%)	0.028	25/81 (30.9%)	29/52 (55.8%)	0.008	21/69 (30.4%)	28/52 (53.8%)	0.016	4/20 (20.0%)	28/41 (68.3%)	0.001
Musculoskeletal	54/98 (55.1%)	33/51 (64.7%)	0.340	46/81 (56.8%)	33/52 (63.5%)	0.560	40/69 (58.0%)	35/52 (67.3%)	0.391	13/20 (65.0%)	26/41 (63.4%)	0.904
Gastrointestinal	17/98 (17.4%)	7/51 (13.7%)	0.737	13/81 (16.1%)	9/52 (17.3%)	0.849	9/69 (13.0%)	10/52 (19.2%)	0.501	4/20 (20.0%)	6/41 (14.6%)	0.716
Neurological	14/98 (14.3%)	17/51 (33.3%)	0.012	11/81 (13.5%)	16/52 (30.8%)	0.029	7/69 (10.1%)	18/52 (34.6%)	0.002	2/20 (10.0%)	15/41 (36.6%)	0.036
Vascular	18/98 (18.4%)	16/51 (31.4%)	0.112	17/81 (21.0%)	14/52 (26.9%)	0.562	12/69 (17.4%)	17/52 (32.7%)	0.082	4/20 (20.0%)	13/41 (31.7%)	0.382
Cardiopulmonary	7/98 (7.1%)	10/51 (19.6%)	0.046	6/81 (7.4%)	8/52 (15.4%)	0.241	5/69 (7.2%)	9/52 (17.3%)	0.154	2/20 (10.0%)	9/41 (22.0%)	0.312
Cumulative treatments												
Glucocorticoids	77/98 (78.6%)	45/51 (88.2%)	0.219	65/81 (80.2%)	45/52 (86.5%)	0.483	55/69 (79.7%)	46/52 (88.5%)	0.300	17/20 (85.0%)	39/41 (95.0%)	0.319
Colchicine	84/98 (85.7%)	29/51 (56.9%)	0.002	72/81 (88.9%)	31/52 (59.6%)	0.002	60/69 (87.0%)	33/52 (63.5%)	0.005	17/20 (85.0%)	26/41 (63.4%)	0.134
Apremilast	20/98 (20.4%)	3/51 (5.8%)	0.030	16/81 (19.8%)	4/52 (7.7%)	0.081	11/69 (15.9%)	7/52 (12.7%)	0.903	4/20 (20.0%)	3/41 (7.3%)	0.203
cs-DMARDs	58/98 (59.2%)	38/51 (74.5%)	0.094	51/81 (63.0%)	38/52 (73.1%)	0.307	43/69 (62.3%)	41/52 (78.8%)	0.079	15/20 (75.0%)	33/41 (80.5%)	0.874
b-DMARDs	32/98 (32.7%)	22/51 (43.1%)	0.279	28/81 (34.6%)	24/52 (46.2%)	0.249	23/69 (33.3%)	23/52 (44.2%)	0.302	9/20 (45.0%)	15/41 (36.6%)	0.725

Continuous variables are expressed as median [1st-3rd quartile] and compared using Mann-Whitney test; categorical variables are expressed as n/number of available data (%) and compared using Chi-square test with Yates' correction or Fisher's exact test.

Supplementary Table S3. Comparisons of demographics, cumulative manifestations and treatments, BODI and Δ BODI scores according to patients' origins.

	Mediterranean Africa n= 14	Eastern Europe n= 8	Asia n= 7	p-value	Non-Italian origin n= 29	Italian origin n=126	p-value
Demographics							
Male sex	13/14 (92.9%)	4/8 (50.0%)	4/7 (57.1%)	0.046	21/29 (72.4%)	48/126 (38.1%)	0.002
Age at diagnosis, years	37 [30-40]; n=14	33 [22-40]; n=8	36 [25-49]; n=7	0.510	36 [27-41]; n=29	36 [25-46]; n=124	0.678
Diagnostic delay, years	1 [0-3]; n=14	2 [0-5]; n=8	0 [0-2]; n=6	0.274	1 [0-3]; n=28	3 [1-8]; n=117	0.008
HLA-B*51 presence	5/11 (45.5%)	4/6 (66.7%)	2/6 (33.3%)	0.658	11/23 (47.8%)	74/112 (66.1%)	0.158
Cumulative manifestations							
Oral ulcers	14/14 (100.0%)	8/8 (100.0%)	7/7 (100.0%)	1.000	29/29 (100.0%)	122/126 (96.8%)	1.000
Genital ulcers	9/14 (64.3%)	7/8 (87.5%)	6/7 (85.7%)	0.538	22/29 (75.9%)	64/126 (50.8%)	0.025
Skin	9/14 (64.3%)	7/8 (87.5%)	4/7 (57.1%)	0.459	20/29 (69.0%)	86/126 (68.3%)	0.941
Ocular	7/14 (50.0%)	4/8 (50.0%)	5/7 (71.4%)	0.706	16/29 (55.17%)	47/126 (37.3%)	0.818
Musculoskeletal	9/14 (64.3%)	4/8 (50.0%)	6/7 (85.7%)	0.466	19/29 (65.5%)	71/126 (56.4%)	0.488
Gastrointestinal	1/14 (7.1%)	1/8 (12.5%)	1/7 (14.3%)	1.000	3/29 (10.4%)	21/126 (16.7%)	0.571
Neurological	5/14 (35.7%)	0/8 (0.0%)	1/7 (14.3%)	0.147	6/29 (20.7%)	27/126 (21.4%)	0.930
Vascular	4/14 (28.6%)	0/8 (0.0%)	1/7 (14.3%)	0.263	5/29 (17.2%)	30/126 (23.8%)	0.606
Cardiopulmonary	2/14 (14.3%)	0/8 (0.0%)	0/7 (0.0%)	0.483	2/29 (6.9%)	15/126 (11.9%)	0.741
Cumulative treatments							
Glucocorticoids	12/14 (85.7%)	5/8 (62.5%)	7/7 (100.0%)	0.157	24/29 (82.8%)	102/126 (81.0%)	0.822
Colchicine	10/14 (71.4%)	7/8 (87.5%)	4/7 (57.1%)	0.419	21/29 (72.4%)	95/126 (75.4%)	0.923
Apremilast	0/14 (0.0%)	2/8 (25.0%)	0/7 (0.0%)	0.121	2/29 (6.9%)	23/126 (18.3%)	0.168
cs-DMARDs	10/14 (71.4%)	4/8 (50.0%)	4/7 (57.1%)	0.614	18/29 (62.1%)	81/126 (64.3%)	0.992
b-DMARDs	5/14 (35.7%)	4/8 (50.0%)	3/7 (42.9%)	0.887	12/29 (41.4%)	44/126 (34.9%)	0.661
Damage							
BODI T0	1 [0-1; min 0, max 7]; n=12	0 [0-1; min 0, max 1]; n=8	1 [0-2; min 0, max 4]; n=7	0.539	0 [0-1; min 0, max 7]; n=27	0 [0-1; min 0, max 6]; n=124	0.062
BODI T1	1 [0-2; min 0, max 7]; n=12	0 [0-1; min 0, max 1]; n=7	1 [0-4; min 0, max 4]; n=7	0.281	1 [0-1; min 0, max 7]; n=26	0 [0-1; min 0, max 8]; n=123	0.071
BODI T3	1 [0-3; min 0, max 8]; n=9	1 [0-1; min 0, max 1]; n=6	1 [0-5; min 0, max 7]; n=5	0.435	1 [0-2; min 0, max 8]; n=20	0 [0-1; min 0, max 8]; n=113	0.042
BODI T5	2 [1-4; min 0, max 8]; n=9	1 [0-1; min 0, max 1]; n=6	1 [0-2; min 0, max 2]; n=3	0.154	1 [0-2; min 0, max 8]; n=18	0 [0-1; min 0, max 12]; n=103	0.054
BODI T10	3 [1-4; min 0, max 9]; n=7	0 [0-1; min 0, max 1]; n=3	1 [0-2; min 0, max 2]; n=2	0.164	1 [0-4; min 0, max 9]; n=12	1 [0-2; min 0, max 12]; n=68	0.371
BODI T>10	4 [1-5; min 1, max 7]; n=7	0 [0-1; min 0, max 1]; n=3	0 [0-0; min 0, max 0]; n=1	0.021	1 [0-4; min 0, max 7]; n=11	1 [0-3; min 0, max 19]; n=50	0.710
Δ BODI T0-T1	0 [0-0; min 0, max 1]; n=11	0 [0-0; min 0, max 0]; n=7	0 [0-2; min 0, max 2]; n=7	0.526	0 [0-0; min 0, max 2]; n=25	0 [0-0; min 0, max 2]; n=123	0.335
Δ BODI T0-T3	0 [0-1; min 0, max 2]; n=8	0 [0-0; min 0, max 1]; n=6	0 [0-3; min 0, max 5]; n=5	0.574	0 [0-1; min 0, max 5]; n=19	0 [0-0; min 0, max 3]; n=113	0.059
Δ BODI T0-T5	1 [0-1; min 0, max 3]; n=8	0 [0-0; min 0, max 1]; n=6	0 [0-1; min 0, max 1]; n=3	0.100	0 [0-1; min 0, max 3]; n=17	0 [0-0; min 0, max 6]; n=102	0.033
Δ BODI T0-T10	2 [1-1; min 0, max 2]; n=6	0 [0-0; min 0, max 0]; n=3	1 [0-1; min 0, max 1]; n=2	0.046	1 [0-2; min 0, max 3]; n=11	0 [0-1; min 0, max 10]; n=67	0.475
Δ BODI T0-T>10	2 [1-5; min 0, max 5]; n=6	0 [0-0; min 0, max 0]; n=3	0 [0-0; min 0, max 0]; n=1	0.012	1 [0-4; min 0, max 5]; n=9	1 [0-2; min 0, max 10]; n=48	0.876
Δ BODI T1-T3	0 [0-1; min 0, max 1]; n=9	0 [0-0; min 0, max 1]; n=6	0 [0-2; min 0, max 3]; n=5	0.180	0 [0-1; min 0, max 3]; n=20	0 [0-0; min 0, max 2]; n=113	0.009
Δ BODI T3-T5	1 [0-1; min 0, max 1]; n=9	0 [0-0; min 0, max 0]; n=6	0 [0-0; min 0, max 0]; n=3	0.580	0 [0-1; min 0, max 8]; n=18	0 [0-0; min 0, max 4]; n=102	0.145
Δ BODI T5-T10	1 [0-1; min 0, max 1]; n=7	0 [0-0; min 0, max 0]; n=3	0 [0-0; min 0, max 0]; n=2	0.056	0 [0-1; min 0, max 5]; n=12	0 [0-0; min 0, max 9]; n=68	0.582
Δ BODI T10-T>10	0 [0-4; min 0, max 5]; n=6	0 [0-0; min 0, max 0]; n=3	0 [0-0; min 0, max 0]; n=1	0.600	0 [0-1; min 0, max 5]; n=10	0 [0-0; min 0, max 9]; n=49	0.724
BODI T0 $\geq$ 1	7/12 (58.3%)	3/8 (37.5%)	4/7 (57.1%)	0.700	13/27 (48.2%)	34/124 (27.4%)	0.060
BODI T1 $\geq$ 1	7/12 (58.3%)	2/7 (28.6%)	4/7 (57.1%)	0.596	13/26 (50.0%)	38/123 (30.9%)	0.101
BODI T3 $\geq$ 1	6/9 (66.7%)	3/6 (50.0%)	3/5 (60.0%)	0.850	12/20 (60.0%)	40/113 (35.4%)	0.067
BODI T5 $\geq$ 1	7/9 (77.8%)	3/6 (50.0%)	2/3 (66.7%)	0.674	12/18 (66.7%)	40/103 (38.8%)	0.052
BODI T10 $\geq$ 1	6/7 (85.7%)	1/3 (33.3%)	1/2 (50.0%)	0.265	8/12 (66.7%)	35/68 (51.5%)	0.510
BODI T>10 $\geq$ 1	7/7 (100%)	1/3 (33.3%)	0/1 (0.0%)	0.024	8/11 (72.7%)	33/50 (66.0%)	1.000

Continuous variables are expressed as median [1st-3rd quartile] and compared using Mann-Whitney test or Kruskal-Wallis test; categorical variables are expressed as n/number of available data (%) and compared using Chi-square test with Yates' correction or Fisher's exact test.

Supplementary Table S4. Items of damage at diagnosis (T0) and last follow-up.

<i>BODI domains</i>	T0	Last follow-up	p-value
Mucocutaneous	5/151 (3.31%)	11/155 (7.10%)	0.218
Musculoskeletal	1/151 (0.66%)	4/155 (2.58%)	0.371
Ocular	15/151 (9.93%)	40/155 (25.81%)	0.001
Vascular	16/151 (10.60%)	28/155 (18.06%)	0.089
Cardiovascular	1/151 (0.66%)	5/155 (3.23%)	0.214
Neuropsychiatric	13/151 (8.61%)	30/155 (19.35%)	0.005
Gastrointestinal	2/151 (1.32%)	4/155 (2.58%)	0.685
Reproductive System	0/151 (0%)	1/155 (0.65%)	1.000
Miscellaneous	7/151 (4.64%)	22/155 (15.19%)	0.008

Categorical variables are expressed as n/number of available data (%) and compared using Chi-square test with Yates' correction or Fisher's exact test.

Supplementary Table S5. Comparisons of cumulative manifestations and treatments according to BODI score at T0 (n=151), T10 (n=80) and ΔBODI T0-T10 (n=78).

	BODI T0 =0 n= 104	BODI T0≥1 n=47	p-value	BODI T10=0 n=37	BODI T10≥1 n=43	p-value	ΔBODI T0- T10=0 n= 47	ΔBODI T0- T10≥1 n=31	p-value
<i>Cumulative manifestations</i>									
Oral ulcers	102/104 (98.1%)	45/47 (95.7%)	0.589	37/37 (100%)	42/43 (97.7%)	1.000	47/47 (100%)	30/31 (96.8%)	0.397
Genital ulcers	63/104 (60.6%)	22/47 (46.8%)	0.161	24/37 (64.9%)	22/43 (51.2%)	0.313	28/47 (59.6%)	17/31 (54.8%)	0.857
Skin	74/104 (71.2%)	30/47 (63.8%)	0.478	27/37 (73.0%)	27/43 (62.8%)	0.465	35/47 (74.5%)	18/31 (58.1%)	0.204
Musculoskeletal	59/104 (56.7%)	30/47 (63.8%)	0.521	22/37 (59.5%)	28/43 (65.1%)	0.772	29/47 (61.7%)	20/31 (64.5%)	0.990
Gastrointestinal	17/104 (16.4%)	7/47 (14.9%)	0.821	5/37 (13.5%)	7/43 (16.3%)	0.975	8/47 (17.0%)	4/31 (12.9%)	0.754
Cardiopulmonary	8/104 (7.7%)	8/47 (17.0%)	0.150	2/37 (5.4%)	9/43 (20.9%)	0.055	5/47 (10.6%)	5/31 (16.1%)	0.716
<i>Cumulative treatments</i>									
Colchicine	-	-	-	32/37 (86.5%)	29/43 (67.4%)	0.083	40/47 (85.1%)	20/31 (64.5%)	0.066
Apremilast	-	-	-	5/37 (13.5%)	5/43 (11.6%)	0.799	6/47 (12.8%)	4/31 (12.9%)	1.000
cs-DMARDs	-	-	-	22/37 (59.5%)	35/43 (81.4%)	0.056	31/47 (66.0%)	24/31 (77.4%)	0.405

Continuous variables are expressed as median [1st-3rd quartile] and compared using Mann-Whitney test; categorical variables are expressed as n/number of available data (%) and compared using Chi-square test with Yates' correction or Fisher's exact test.

Supplementary Table S6. Analysis of predictors' collinearity by Variance Inflation Factor (VIF).

	Sex	Non-Italian origin	HLA-B*51	Glucocorticoids	Age at diagnosis
Sex	-	1.078	1.018	1.001	1.030
Non-Italian origin	-	-	1.020	1.000	1.003
HLA-B*51	-	-	-	1.001	1.014
Glucocorticoids	-	-	-	-	1.000
Age at diagnosis	-	-	-	-	-

Supplementary Table S7. Multivariable analysis exploring potential predictors of damage (BODI ≥ 2) at T0 and T10.

	BODI≥2 T0* n=20/151			BODI≥2 T10** n=29/80		
	n	OR (95% CI)	p-value	n	OR (95% CI)	p-value
Male sex	66/151	1.207 (0.361-3.942)	0.755	35/80	1.365 (0.412-4.654)	0.610
Non-Italian origin	27/151	2.408 (0.537-9.890)	0.239	12/80	2.693 (0.527-14.480)	0.229
HLA-B*51	85/134	2.081 (0.654-6.721)	0.212	40/66	0.720 (0.212-2.331)	0.586
Glucocorticoids	-	-	-	69/80	5.078 (0.793-100.300)	0.092
Age at diagnosis	149	1.086 (1.043-1.139)	<0.001	78	1.051 (1.010-1.100)	0.013

*AUC 0.8150 (CI 95%: 0.7212-0.9088); Hosmer-Lemeshow test: $p=0.6626$;

**AUC 0.7190 (CI 95%: 0.5875-0.8506); Hosmer-Lemeshow test: $p=0.3308$.