

## Supplementary Online Content

Discepolo V, Catzola A, Pierri L, et al. Bilateral chilblain-like lesions of the toes characterized by microvascular remodeling in adolescents during the COVID-19 pandemic. *JAMA Netw Open*. 2021;4(6):e2111369. doi:10.1001/jamanetworkopen.2021.11369

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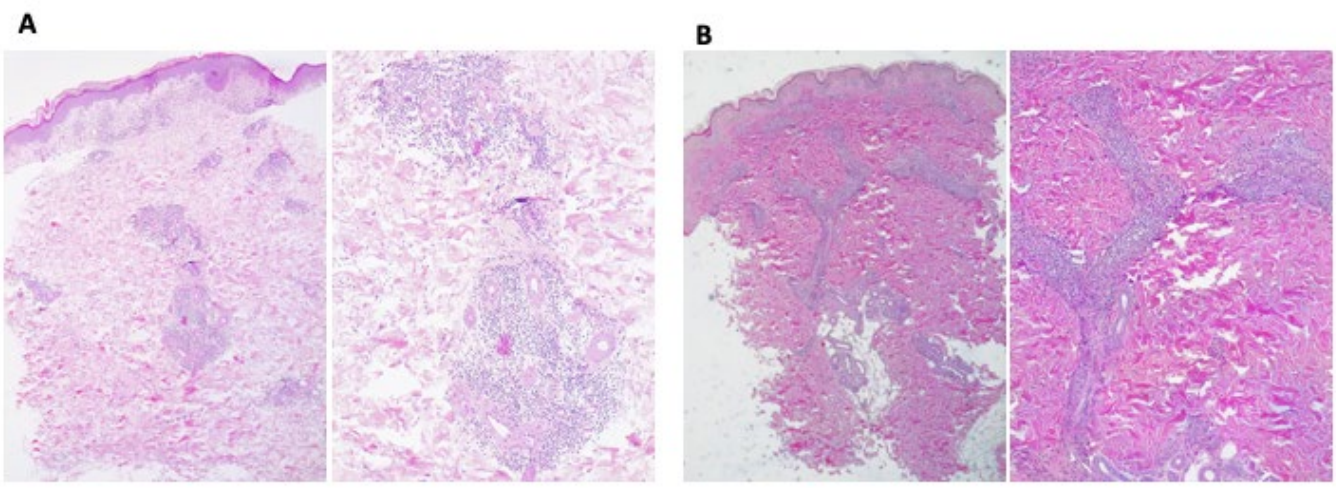
This supplementary material has been provided by the authors to give readers additional information about their work.



***eFigure 1. Heel involvement and swelling of the toes.*** Lesions localized on the heels characterized few cases (A-C) The evolution of the lesions was characterized by desquamation (B). Swelling of the toes was also commonly reported in our cohort (D).

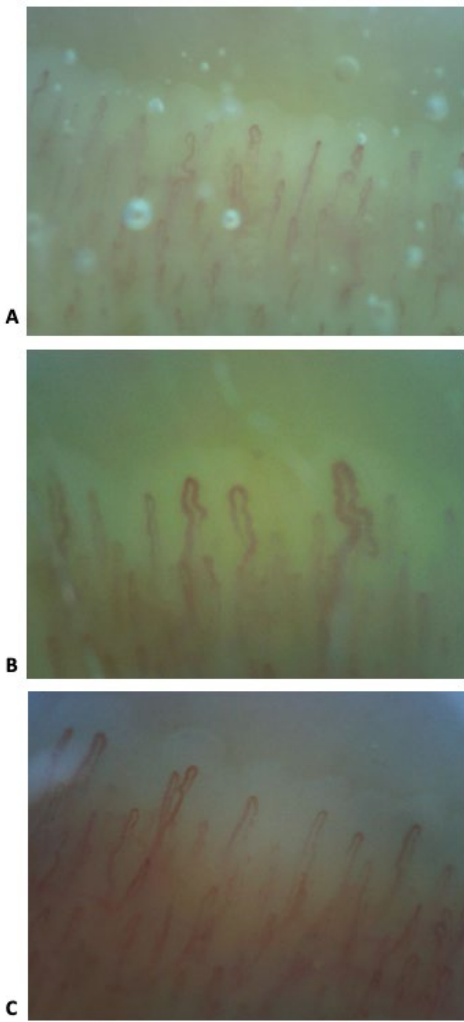


*eFigure 2. Ulceration was a rare complication of the lesions.* One representative case presented with ulceration of the right big toe. Evolution of the lesion over time is presented in the images (A-E).



***eFigure 3. Histology of disease controls including perniosis and leukocytoclastic vasculitis.***

Haematoxylin and eosin staining of a representative case of perniosis (A) showing a moderate lymphocytic infiltrate with perivascular and peri-eccrine distribution and of leukocytoclastic vasculitis (B) characterized by an intense neutrophilic infiltrate involving the vessels wall. Original magnification 4X, left images and 10X, right.



*eFigure 4. Capillaroscopy reveals no systemic inflammatory process.* Videocapillaroscopy images from three representative cases (A-C), showing normal microvascular architecture of the hands in most case or sparse ectasias.

*eTable 1. Dermoscopy findings in patients.*

Patient Code	Onset to T1 (days)	DERMOSCOPY T1						
		Dermo T1	Red dots	White streak	Rosettes	Triad	Other pigmented areas	Desquamation
1	13	Y	Y	Y	Y	Y	Y	Y
2	65	Y	Y	Y	Y	Y	N	N
3	24	Y	Y	Y	Y	Y	N	N
4	27	Y	Y	Y	Y	Y	Y	N
5	31	Y	Y	N	Y	N	Y	N
6	39	Y	Y	Y	N	N	Y	N
7	113	Y	Y	N	Y	N	N	N
8	34	Y	Y	Y	Y	Y	Y	N
9	83	Y	Y	Y	Y	Y	Y	N
10	52	Y	Y	Y	Y	Y	Y	N
11	46	Y	Y	N	Y	N	N	Y
12	45	Y	Y	N	N	N	N	N
13	57	Y	Y	Y	Y	Y	Y	N
14	54	N	NA	NA	NA	NA	NA	N
15	43	Y	Y	Y	Y	Y	Y	N
16	63	Y	Y	Y	Y	Y	N	N
17	12	Y	Y	N	N	N	N	N
	DERMOSCOPY T2							
	T1 to T2 (days)	Dermo T2	Red dots	White streak	Rosettes	Triad	Other pigmented areas	Time to resolution (days)
1	36	N	NA	NA	NA	NA	NA	49
2	22	N	NA	NA	NA	NA	NA	87
3	25	N	NA	NA	NA	NA	NA	49
4	25	N	NA	NA	NA	NA	NA	52
5	36	N	NA	NA	NA	NA	NA	67
6	36	N	NA	NA	NA	NA	NA	75
7	32	N	NA	NA	NA	NA	NA	145
8	35	N	NA	NA	NA	NA	NA	69
9	NA	N	NA	NA	NA	NA	NA	NA
10	37	N	NA	NA	NA	NA	NA	89
11	37	Y	N	N	N	N	N	83
12	35	Y	N	N	N	N	N	80
13	50	N	NA	NA	NA	NA	NA	107
14	NA	N	NA	NA	NA	NA	NA	NA
15	33	Y	N	N	N	N	1	76
16	28	Y	N	N	N	N	N	91
17	NA	N	N	N	N	N	N	NA

T1, enrollment visit. T2, follow-up visit. Y, yes. N, No. NA, not assessed.

*eTable 2. Laboratory tests in patients.*

PATIENT CODE	CBC						INFLAMMATION				
	WBC Cell/ $\mu$ l	N	L	M	E	PLT Cell/ $\mu$ l	CRP mg/dl	PCT Ng/ml	ESR mm	Ferritin ng/ml	Ddimer mg/l
1	5250	2860	1890	460	30	281	0.33	0.05	NA	28	0.09
2	4980	2320	2160	360	110	195	NA	0.05	20	36	0.25
3	5290	2760	1920	430	150	240	0.33	0.05	8	70	0.26
4	6800	3290	2690	460	290	266	0.33	0.05	10	47	0.22
5	8320	5050	2660	440	120	300	0.33	0.05	10	17	0.22
6	7010	3040	2740	430	730	286	0.33	0.05	18	61	0.13
7	4290	2390	1300	480	100	209	0.33	0.05	NA	27	0.16
8	4860	1720	2670	380	80	277	0.33	0.05	7	38	0.17
9	6240	2510	2680	310	470	221	0.33	0.05	NA	11	NA
10	5020	1750	2810	340	80	258	0.33	0.05	NA	46	0.14
11	5450	2610	2340	370	100	264	0.33	0.05	30	14	0.19
12	8690	3010	4520	520	70	247	0.33	0.05	15	42	0.26
13	3900	2120	1400	220	130	233	0.33	0.05	10	50	0.2
14	4420	NA	NA	NA	NA	222	0.44	0.03	NA	63.3	NA
15	4500	1690	2150	400	210	195	0.33	0.05	5	24	0.12
16	7380	5370	1570	380	30	215	0.7	0.05	22	28	0.38
17	7990	5090	2470	360	30	255	0.33	0.05	7	52	0.24
IMMUNOLOGICAL LAB TESTS											
PATIENT CODE	IgG g/l	IgA g/l	IgM g/l	ICC C1Q	ICC C3d	C3 g/l	C4 g/l	ANA	ENA		
1	10.1	1.09	0.97	0.67	2.49	<b>1.22</b>	0.21	NEG	NEG		
2	10.6	2.24	0.69	1.3	2.73	<b>1.59</b>	0.25	NEG	NEG		
3	9.82	1.07	0.82	0.72	1.81	<b>1.36</b>	0.21	NEG	NEG		
4	12.6	2.33	0.84	1.81	2.41	<b>1.21</b>	0.19	NEG	NEG		
5	10	0.78	0.74	6.3	1.2	<b>1.13</b>	0.17	NEG	NEG		
6	9.92	3.25	1.27	2.79	2.48	<b>1.12</b>	0.18	NEG	NEG		
7	8.55	1.45	1.28	0.41	1.48	<b>1.15</b>	0.19	NEG	NEG		
8	11.7	1.8	0.5	NA	NA	<b>1.01</b>	0.21	NEG	NEG		
9	11.7	2.3	2.09	NA	NA	<b>1.11</b>	0.15	NEG	NEG		
10	12.4	1.04	3.28	1.08	1.28	<b>1.37</b>	0.15	NEG	NEG		
11	9.45	1.25	0.83	5.03	1.28	<b>1.08</b>	0.11	NEG	NEG		
12	9.57	1.75	0.38	9.53	1.98	<b>1.61</b>	0.31	NEG	NEG		
13	10.2	0.99	0.42	0.27	0.6	<b>1</b>	0.15	NEG	NEG		
14	6.76	2.05	0.55	NA	NA	<b>0.97</b>	0.2	NA	NA		
15	10.7	1.5	0.92	0.63	2.72	<b>1.37</b>	0.15	NEG	NEG		
16	8.79	0.95	1.74	2	2.1	<b>1.07</b>	0.15	NEG	NEG		
17	14	3.26	1.96	3.21	2.44	<b>1.59</b>	0.3	NEG	NEG		

WBC, white blood cells. N, neutrophils. L, lymphocytes. M, monocytes. E, eosinophils. PLT, platelets. CRP, C reactive protein. PCT, pro-calcitonin. ESR, Eritrocyte sedimentation rate. Ig, immunoglobulins. ICC, circulating immune complexes. C3, C4 complement fraction 3(normal value g/l 0.51-0.95), 4 (normal value 0.08-0.44). ANA, anti-nuclear antibodies. ENA, extractable nuclear antigens antibodies.

**eTable 3. Histology findings.**

<b>Patient Code</b>	<b>Onset to T1 (days)</b>	<b>SKIN BIOPSY (Y/N)</b>	<b>Increased number vessels</b>	<b>Lobular organization</b>	<b>Endothelial hyperplasia</b>	<b>Lymphocytic perivascular infiltrate</b>
1	13	N	NA	NA	NA	NA
2	65	Y	Y	Y	Y	Y
3	24	N	NA	NA	NA	NA
4	27	N	NA	NA	NA	NA
5	31	Y	Y	Y	Y	Y
6	39	Y	Y	Y	Y	Y
7	113	Y	Y	Y	Y	Y
8	34	Y	N	N	Y	Y
9	83	Y	Y	Y	Y	Y
10	52	N	NA	NA	NA	NA
11	46	N	NA	NA	NA	NA
12	45	Y	N	Y	Y	Y
13	57	Y	N	Y	Y	Y
14	54	Y	N	N	Y	Y
15	43	Y	Y	Y	Y	Y
16	63	Y	Y	N	N	Y
17	12	Y	N	Y	Y	N

T1, enrollment visit. T2, follow-up visit. Y, yes. N, No. NA, not assessed.



*eTable 4. Capillaroscopy findings.*

<b>Patient Code</b>	<b>Vessels ectasia</b>	<b>Winding vessels</b>
001	rare	N
002	N	N
003	N	N
004	rare	N
005	rare	N
006	frequent	Y
007	rare	N
008	rare	N
009	NA	NA
010	N	N
011	N	N
012	rare	Y
013	frequent	N
014	NA	NA
015	N	N
016	frequent	Y
017	NA	NA

Y, yes. N, No. NA, not assessed.