

Supplementary data

Protocol of Measures. Top shows the protocol of measure at the starting point (0 km). Middle part includes the protocol of the first part of the hike (0-14.5 km) and lower part of the table reflex the measurement protocol of the second part of the hike (14.5-29.6 km)

<u>PROTOCOL OF MEASURES</u>																																	
<u>STARTING POINT (0 Km)</u> Dorsal Number:.....Gender:.....Foot size:..... Weight.....Size..... Body mass index (BMI):..... Nº Bag with Socks:..... Previous Alterations on skin, muscles or nails.....																																	
Temperature RF					Temperature LF																												
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td style="width: 25%;">Plantar</td><td style="width: 25%;"></td><td style="width: 25%;"></td><td style="width: 25%;"></td></tr> <tr><td>Dorsal</td><td></td><td></td><td></td></tr> </table>				Plantar				Dorsal				<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td style="width: 25%;">Plantar</td><td style="width: 25%;"></td><td style="width: 25%;"></td><td style="width: 25%;"></td></tr> <tr><td>Dorsal</td><td></td><td></td><td></td></tr> </table>				Plantar				Dorsal													
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<u>Perimeters RF: (Three different measures)</u>  toes instep tibia hell					<u>Perimeters LF: (Three different measures)</u>  toes instep tibia hell																												
<u>FIRST PART OF THE HIKE (0-14.5 Km)</u>					<u>Perimeters RF: (Three different measures)</u>  toes instep tibia hell																												
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<u>LESIONS (0-14.5KM)</u> <u>SKIN LESIONS (SPECIFY RF AND LF)</u> Hyperkeratosis Heloma..... BlisterErosion..... Reeddned skin..... Urticaria.....Grevice..... Others.....																																	
<u>MUSCLE LESIONS (SPECIFY RF AND LF)</u> Pain due inadequate warmInflamation..... Muscle discomfort..... Sprain..... Others																																	
<u>NAIL LESIONS (SPECIFY RF AND LF)</u> Onichocryptosissubungual hematoma..... Others.....																																	
EXTRA DETAILS																																	

SECOND PART OF THE HIKE (14.5-29.6 Km)**Temperature RF: (Three different measures)**

Plantar			
Dorsal			

Temperature LF: (Three different measures)

Plantar			
Dorsal			

LESIONS (14.5-29.6 Km)**SKIN LESIONS (SPECIFY RF AND LF)**

Hyperkeratosis Heloma.....Blister
.....Erosion.....Reddened skin.....
Urticaria
Grevice.....Others.....
.....

MUSCLE LESIONS (SPECIFY RF AND LF)

Pain due inadequate warmInflammation.....
Muscle discomfort..... Sprain..... Others.....

NAIL LESIONS (SPECIFY RF AND LF)

Onychocryptosissubungual hematoma
Others.....
...

Perimeters RF: (Three different measures)

tibia

heel

toes instep

Perimeters LF: (Three different measures)

tibia

heel

toes instep

EXTRA DETAILS

Table S1. Foot temperature by sock type (technical/non-technical).

Distance	Socks		P-value socks	P-value distance	
(km)	T	NT	T-NT	T	NT
Dorsal temp (°C) RF					
0	35.0	20.7	0.000*	(1)=0.000*	(1)=0.000*
14.5	36.2	32.3	0.000*	(2)=0.000*	(2)=0.000*
29.6	36.3	30.4	0.000*	(3)=0.101	(3)=0.413
Dorsal temp (°C) LF					
0	35.2	20.6	0.000*	(1)=0.000*	(1)=0.000*
14.5	36.2	32.4	0.000*	(2)=0.000*	(2)=0.000*
29.6	36.4	30.8	0.000*	(3)=0.101	(3)=0.053
Plantar temp (°C) RF					
0	34.9	21.2	0.000*	(1)=0.000*	(1)=0.000*
14.5	36.0	30.0	0.000*	(2)=0.000*	(2)=0.000*
29.6	36.2	29.8	0.000*	(3)=0.091	(3)=0.847
Plantar temp (°C) LF					
0	34.9	21.3	0.000*	(1)=0.000*	(1)=0.000*
14.5	36.0	30.6	0.000*	(2)=0.000*	(2)=0.000*
29.6	36.2	29.8	0.000*	(3)=0.340	(3)=0.736

T=Technical, NT=Non-Technical, Km=Kilometres, Temp=Temperature, (°C)=Degrees centigrade (*)=Significant difference, RF=Right foot, LF=Left foot, (1)= Distance between 0-14.5 Km, (2)=Distance between 0-29.6 Km, (3)= between 14.5-29.6 Km.

Table S2. Foot temperature by sock composition.

Distance (km)	Sock			P-value			P-value distance		
	T	S	C	T-S	T-C	S-C	T	S	C
Dorsal temp (°C) RF									
0	34.9	35.1	21.2	1.000	0.000*	0.000*	(1)=0.000*	(1)=0.000*	(1)=0.000*
14.5	36.1	36.2	32.3	1.000	0.000*	0.000*	(2)=0.000*	(2)=0.000*	(2)=0.000*
29.6	36.3	36.4	30.4	1.000	0.000*	0.000*	(3)=0.526	(3)=0.305	(3)=0.413
Dorsal temp (°C) LF									
0	35.1	35.2	20.6	1.000	0.000*	0.000*	(1)=0.000*	(1)=0.002*	(1)=0.000*
14.5	36.3	36.1	32.4	0.417	0.000*	0.001*	(2)=0.000*	(2)=0.00*	(2)=0.000*
29.6	36.4	36.4	30.8	1.000	0.000*	0.000*	(3)=0.341	(3)=0.467	(3)=0.158
Plantar temp (°C) RF									
0	34.9	35.0	21.2	1.000	0.000*	0.000*	(1)=0.000*	(1)=0.000*	(1)=0.000*
14.5	35.7	36.1	30.0	0.228	0.000*	0.000*	(2)=0.000*	(2)=0.000*	(2)=0.000*
29.6	36.2	36.3	29.9	1.000	0.000*	0.000*	(3)=0.826	(3)=0.826	(3)=1.000
Plantar temp (°C) LF									
0	34.9	34.9	21.3	1.000	0.000*	0.000*	(1)=0.000*	(1)=0.000*	(1)=0.000*
14.5	36.2	35.8	30.6	0.105	0.000*	0.000*	(2)=0.000*	(2)=0.000*	(2)=0.000*
29.6	36.2	36.1	29.8	1.000	0.000*	0.000*	(3)=1.000	(3)=0.184	(3)=0.736

Km=Kilometres, T=Tierra, S=Set, C=Cotton, temp=Temperature, (°C)=Degrees centigrade, RF=Right foot, LF=Left foot, (*)=Significant difference, (1)= Distance between 0-14.5 Km, (2)= Distance between 0-29.6 Km, (3)= Distance between 14.5-29.6 Km.