Table 1.

	axSpA without IBD (n=829)	axSpA with IBD (n=57)	p
Men/Women, n	272/557	15/42	0.33
Mean age (years) $\pm$ SD at the time of study	49 $\pm$ 13	49 $\pm$ 10	0.99
AS/nr-AxSpA	656/173	45/12	0.97
History of CV risk factors			
Current smoker	285 (34)	12 (21)	0.045
Obesity			
Dyslipemia	280 (34)	16 (28)	0.42
Hypertension	223 (27)	16 (28)	0.79
Diabetes Mellitus	60 (7)	4 (7)	0.99
Chronic Kidney Disease	20 (2)	2 (4)	0.65
History of cardiovascular events, n (%)	40 (5)	2 (4)	0.99
Structural damage at the time of study			
Presence of syndesmophytes, n (%)	307 (37%)	23 (49%)	0.66
mSASSS	5 (1-15)	6 (3-23)	0.64
Severe sacroiliitis (grade 3,4), n (%)	436 (53)	34 (60)	0.42
CV data at the time of study			
Carotid plaques	261 (31)	21 (37)	0.45
IMT (mm)	645 $\pm$ 147	636 $\pm$ 112	0.64
IMT $\geq$ 0.9 mm	46 (6)	0 (0)	0.066

Abbreviations: AS = ankylosing spondylitis. AxSpA= axial spondylitis. CV = cardiovascular. IBD = Inflammatory bowel disease. IMT = intima-media wall thickness. Nr-AxSpA = no-radiographic axial spondylitis.

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POS1408

REPRODUCIBILITY OF A NEW AUTOMATIC SYSTEM (CAPILLARY.IO) IN THE ANALYSIS OF NAILFOLD CAPILLAROSCOPY IMAGES

B. Gracia Tello^{1,2}, E. Ramos³, C. P. Simeón-Aznar⁴, V. Fonollosa Pla⁴, A. Guillén-Del-Castillo⁴, A. Selva-O'callaghan⁴, L. Sáez-Comet⁵, E. Martínez Robles⁶, J. Ríos⁶, G. Espinosa⁷, J. A. Todolí Parra⁸, J. L. Callejas-Rubio⁹, N. Ortego⁹, B. Mari-Alfonso¹⁰, M. Freire¹¹, P. Fanlo¹². ¹Hospital Clínico Universitario Lozano Blesa, Zaragoza, Spain, Internal Medicine, Zaragoza, Spain; ²Zaragoza, Instituto de Investigación Sanitaria de Aragón (ISSA), Zaragoza, Spain; ³Zaragoza, Computer Science Graduate by University of Zaragoza, Zaragoza, Spain; ⁴Hospital Universitari Vall d'Hebron, Unit of Autoimmune Diseases, Department of Internal Medicine, Barcelona, Spain; ⁵Hospital Universitario Miguel Servet, Department of Internal Medicine, Zaragoza, Spain; ⁶Hospital General Universitario La Paz, Department of Internal Medicine, Madrid, Spain; ⁷Hospital Clínic, Department of Internal Medicine, Unit of Autoimmune Diseases, Barcelona, Spain; ⁸Hospital La Fe, Department of Internal Medicine, Valencia, Spain; ⁹Hospital Universitario Virgen de las Nieves, Unit of Autoimmune Diseases, Department of Internal Medicine, Granada, Spain; ¹⁰Hospital Universitario Parc Taulí, Department of Internal Medicine, Sabadell, Spain; ¹¹Complejo Hospitalario Universitario de Santiago, Department of Internal Medicine, Santiago de Compostela, Spain; ¹²Complejo Hospitalario de Navarra, Pamplona, Department of Internal Medicine, Pamplona, Spain

Background: Nailfold Capillaroscopy is a simple, inexpensive and non-invasive technique that allows microvascular damage to be observed, gaining recent importance in the diagnosis, monitoring and prognosis of many diseases with microangiopathy. However, the variability in the results interpretation has led to the development of new computerized systems that allow the automatic analysis of capillaroscopic images.

Objectives: to compare the degree of agreement between the automatic system Capillary.io and a gold standard obtained from the agreement of 9 expert capillaroscopists and to know the degree of the interobserver reliability To demonstrate the validity of the system to detect normal and enlarged capillaries, hemorrhages, megacapillaries, ramifications and tortuosities.

Methods: a cross-sectional study was performed in which 300 random and anonymous nailfold capillaroscopic images (1165 capillaries) were analyzed by 9 experienced observers. The degree of interobserver agreement was calculated from the 5 users. Likewise, the system performed an automatic assessment of the images and their agreement with the gold standard was calculated (interobserver agreement greater than 5, 6, 7, 8 and 9 successively). The validity of the program for each variable was also analyzed using sensitivity and specificity, positive and negative predictive values, and likelihood ratios, as well as their degree of agreement using the weighted kappa statistic (95% CI, p < 0.05). The programs used for statistical calculations were SPSS 22.0 and EPIDAT 3.0.

Results: the degree of interobserver agreement was 76.5% for the agreement of 5 or more observers, progressively decreasing to 15.4% for the 9 observers. Capillary.io obtained higher levels of agreement, reaching 97.7%

for the 9 observers. Statistically significant results were obtained in the automated detection of all the morphological alterations analyzed Capillary.io presented a sensitivity (S) of 79.82% and a specificity (E) of 82% in the recognition of normal capillaries. The automatized system was able to recognize enlarged capillaries with a sensitivity of 86.97% and a specificity of 81.38%. Megacapillaries were detected with 89.41% sensitivity and 78.75% specificity. Similarly, the system was able to detect tortuosities (S 66.94%; E 67.71%), ramifications (S 54.34%; E 58.61%) and hemorrhages (S 71.36; E 73.97%).

Conclusion: Capillary.io demonstrated a high degree of agreement with the gold standard, stronger with greater consensus among observers. It was able to detect with great sensitivity and specificity hemorrhages and megacapillaries, very relevant alterations in microangiopathies.

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POS1409

AUTOMATED DETECTION OF SCLERODERMIFORM PATTERNS USING CAPILLARY.IO

E. Ramos¹, A. Guillén-Del-Castillo², C. P. Simeón-Aznar², B. Gracia Tello^{3,4}, V. Fonollosa Pla², A. Selva-O'callaghan², L. Sáez-Comet⁵, E. Martínez Robles⁶, J. J. Ríos⁶, G. Espinosa⁷, J. A. Todolí Parra⁸, J. L. Callejas-Rubio⁹, N. Ortego⁹, B. Mari-Alfonso¹⁰, M. Freire¹¹, P. Fanlo¹². ¹Zaragoza, Computer Science Graduate by University of Zaragoza, Zaragoza, Spain; ²Hospital Universitario Vall d'Hebron, Unit of Autoimmune Diseases, Department of Internal Medicine, Barcelona, Spain; ³Hospital Clínico Universitario Lozano Blesa, Department of Internal Medicine, Zaragoza, Spain; ⁴Zaragoza, Instituto de Investigación Sanitaria de Aragón (ISSA), Zaragoza, Spain; ⁵Hospital Universitario Miguel Servet, Department of Internal Medicine, Zaragoza, Spain; ⁶Hospital General Universitario La Paz, Department of Internal Medicine, Madrid, Spain; ⁷Hospital Clínic, Department of Internal Medicine, Unit of Autoimmune Diseases, Barcelona, Spain; ⁸Hospital La Fe, Department of Internal Medicine, Valencia, Spain; ⁹Hospital Universitario Virgen de las Nieves, Unit of Autoimmune Diseases, Department of Internal Medicine, Granada, Spain; ¹⁰Hospital Universitario Parc Taulí, Department of Internal Medicine, Sabadell, Spain; ¹¹Complejo Hospitalario Universitario de Santiago, Department of Internal Medicine, Santiago de Compostela, Spain; ¹²Complejo Hospitalario de Navarra, Department of Internal Medicine, Pamplona, Spain

Background: A nailfold capillaroscopy procedure is a non-invasive, low-cost, and well-established examination that can be used to diagnose several rheumatic autoimmune diseases and support the necessary follow-up of patients. While the clinical implications of the technique are known, a rigorous and in-depth examination of nailfold capillaries remains as one of the major challenges to produce new advances in research and diagnosis, due to practical limitations for analysing the whole nailfold area of each patient. The difference between the different patterns established by Maricq and Cutolo makes it possible to predict the evolution that the patient will present. We introduce Capillary.io, an automatic image reading system able to recognize capillaries in images obtained with any microscope, generate automatic measurements of each capillary and take advantage of this information to report capillary morphology and patterns.

Objectives: to determine the ability to detect active and early sclerodermiform patterns of Capillary.io.