313. NAIL-FOLD CAPILLAROSCOPY ABNORMALITIES IN AN UNSELECTED CORHOF OF PATIENTS WITH RAYNAUD’S PHENOMENON CONFIRMS SIGNIFICANT ASSOCIATION OF ANTIBODY POSITIVITY AND SSC PATTERNS: EXPERIENCE FROM A SINGLE TERTIARY CENTRE

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Background: Nail-fold capillaroscopy (NFC) patterns of vasculopathy have been well described in SSC but few studies have reported abnormalities in an unselected cohort of patients with RP across the rheumatic conditions in a real-life clinical setting. Our objectives were to report NFC findings in patients with RP and describe the association with clinical diagnosis and serological profile.

Methods: We evaluated patients with primary and secondary RP (pRP or sRP respectively) attending the Leeds Teaching Hospitals NHS Trust rheumatology clinics that were referred for and underwent high-definition video-NFC. Prospective documentation included clinical diagnosis, antibody (Ab) status and capillaroscopy findings. Patients were categorized: Ab negative (–ve) pRP, Ab positive (+ve) sRP, SSC-related sRP and other CTD-related (non-SSc) sRP. NFC patterns were determined: normal, non-specific, early, active or late SSC patterns.

Results: 347 patients were referred to the NFC service between January 2009 and October 2013. Of these, 293 were determined to have true RP (281 (85%) female and mean (±S.D.) age 48 (15) years), 183 (66%) were Ab-ve. 190 (65%) were Ab+ve, 49 (26%) ACA+ve, 11 (6%) Scl70+ve and 21 (11%) RNP+ve. 79 (27%) had Ab-ve pRP, 99 (34%) Ab+ve sRP, 49 (17%) SSC-related sRP (4 Ab–ve), and 68 (23%) other (non-SSc) CTD-related sRP (17 Ab–ve). Of the latter, 35 (53%) had UCTD, 14 (21%) inflammatory arthritides, 6 (9%) MCTD, 4 (6%) SLE and 6 (9%) other autoimmune conditions. 11 with sRP had history of digital ulceration (DU). Non-specific abnormalities, and to a lesser extent early patterns, were seen across all diagnoses (Table 1). Analysing those with sRP, greater active and late patterns were seen in SSC-related sRP than in those without SSC (Ab–ve sRP or CTD-related (non-SSc) sRP) (active: 39% vs 7% respectively, relative risk
(RR) 7.88, 95% CI 4.10, 15.17, \( P < 0.0001 \); late: 8% vs 1% respectively. RR 9.96, 95% CI 1.88, 52.87, \( P = 0.0081 \). Ab positivity was associated with abnormal NFC (\( P = 0.025 \) for any Ab, \( P = 0.019 \) for ANA, \( P < 0.001 \) for ACA). The RR of detecting a SSc NFC pattern (early/active/late) if ANA or ACA +ve was 1.88 (1.16, 3.05, \( P = 0.0007 \)) and 2.59 (95% CI 1.80, 3.72, \( P < 0.001 \)) respectively. A history of previous DU in sRP was also associated with abnormal NFC (\( P = 0.015 \)) and SSc NFC pattern (RR 2.59, 95% CI 1.70, 3.96, \( P = 0.0037 \). Ab +ve with a SSc NFC pattern conferred an OR of SSc-sRP of 11.03 (95% CI 4.81, 25.77, \( P < 0.0001 \); early: 3.22 (95% CI 1.24, 8.15, \( P < 0.0119 \), active: 7.6 (95% CI 2.87, 20.56, \( P < 0.0001 \), late: 7.12 (95% CI 0.97, 50.25, \( P = 0.0273 \).)

**Conclusion:** NFC abnormalities are commonly seen in RP of any cause, however active and late vasculopathy patterns are rarely visualized in RP not related to SSc. Presence of Ab or previous DU is associated with abnormal NFC. Presence of Ab with SSc NFC pattern greatly increases odds of having SSc-related sRP.

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