## Capillaroscopic patterns in systemic sclerosis: do we need a *stable* pattern?

Sirs,

Systemic sclerosis (SSc) is a heterogenic connective tissue disease where microvascular involvement plays a crucial role in its pathophysiology. Nailfold capillary microscopy (NCM) is an important tool to recognise the early and late findings of SSc vasculopathy (1, 2). As a dynamic process, the microvascular expression of this vasculopathy can be classified in different patterns which are typical of SSc. In the last decade, the most widely used classification of SSc capillaroscopic patterns is the one described by Cutolo *et al*. as:

1. "*early"* pattern: few megacapillaries and few microhaemorrhages with preserved capillaries distribution;
2. "*active"* pattern: frequent megacapillaries and frequent microhaemorrhages with a slight alteration of capillaries distribution;
3. "*late"* pattern: irregular enlargement of capillaries with ramified capillaries and avascular areas and few or no microhaemorrhages (3).

From the same investigational group, Sulli *et al*. suggest that there is a strong tendency to a progression in time from the "*early"* pattern to the "*active"* and "*late"* pattern, and a fast progression on that SSc capillaroscopic pattern aggravation could be a sign of worse prognosis and of a most probable organ involvement of the disease (4, 5).

However, from the personal experience and capillaroscopy data evaluation of the SSc patients of our cohort, we believe that some patients with SSc can have a very slow progression or achieve some kind of stability of their expression of vasculopathy in NCM. That is suggested also by one of the works previously mentioned where 47% of the patients rest at an "*early"* pattern after an average follow-up of 84 months (4).

In summary (Table I), we describe 6 women, with a mean age of 63 years (± 12), who meet the new EULAR/ACR classification criteria of SSc with a long history of disease and with repeated NCM showing a stabilisation or improvement of their capillaroscopic patterns, without achievement of the *late* pattern (6). Only one of the patients has had immunomodulators (methotrexate). That possible "*stable*" pattern, seems to differ from the "*early"* pattern by the presence of more megacapillaries and from the "*active"* pattern by a smaller number of microhaemorrhages, at the same time that the microarchitecture of the nailfold field is preserved and there is an absence of capillaries ramifications (neovascularisation).

Somehow, this "*stable*" pattern is correlated with the first description of SSc patterns in NCM made by Maricq *et al*. in 1983 (7), where a "*slow*" pattern (dilated nailfold capillaries without avascular areas) was identified and correlated with a milder and slowly progressive disease, as is the case of the patients that we present in this letter.

The SSc capillaroscopic patterns progression during the course of the disease should be reviewed in wider and multicentre studies in order to accommodate the group of patients with SSc classification criteria with no progression to a "*late*" pattern in NCM. That rearrangement of SSc patterns in capillaroscopy could have important prognostic implications (8).

**Table I.** Characteristics of patients with long duration SSc and no progression to capillaroscopic "*late*" pattern.

| | Patient 1 | Patient 2 | Patient 3 | Patient 4 | Patient 5 | Patient 6 |
|---|---|---|---|---|---|---|
| 2013 ACR/EULAR criteria score | 9 | 11 | 12 | 10 | 11 | 12 |
| 1980 ACR criteria | no | no | no | no | no | no |
| RP - duration (years) | 34 | 40 | 25 | 14 | 18 | 16 |
| First symptom other than RP - (years) | 20 | 28 | 20 | 14 | 17 | 13 |
| ANA > 1/320 | yes | yes | yes | yes | yes | yes |
| Anticentromere | no | yes | no | yes | no | yes |
| Anti-topoisomerase I | no | no | yes | no | no | no |
| Modified Rodnan Score | 4 | 6 | 4 | 8 | 8 | 6 |
| Interstitial lung disease | no | no | slight | no | no | no |
| Pulmonary arterial hypertension | no | slight | no | no | no | no |
| *Previous capillaroscopy** | | | | | | |
| Haemorrhages | 1 | 2 | 1 | 2 | 1 | 1 |
| Megacapillaries | 1 | 1 | 1 | 2 | 1 | 1 |
| Avascular areas | 0 | 0 | 0 | 0 | 0 | 0 |
| Ramifications | 0 | 0 | 0 | 0 | 0 | 0 |
| Last capillaroscopy* | | | | | | |
| Haemorrhages | 0 | 1 | 0 | 0 | 0 | 0 |
| Megacapillaries | 1 | 2 | 1 | 2 | 2 | 1 |
| Avascular areas | 0 | 0 | 0 | 0 | 0 | 0 |
| Ramifications | 0 | 0 | 0 | 0 | 0 | 0 |

*semi-quantitative rating scale (score 0–3): 0: none; 1: <33%; 2: 33% to 66%; 3: >66%.
RP: Raynaud's phenomenon; ANA: antinuclear antibodies.

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