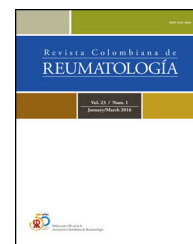




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Editorial

Raynaud's phenomenon: Sentinel event in rheumatology



Fenómeno de Raynaud: Evento centinela en reumatología

Raynaud's phenomenon is a common condition that affects between 3 and 5% of the general population. In 80% of the cases it is primary and, in general, patient education and non-pharmacological measures are sufficient for its control. In contrast, the remaining 20% is due to secondary causes such as systemic diseases, medications or structural alterations. Within the systemic conditions, autoimmune diseases, especially systemic sclerosis, are the most frequently associated entities; in this scenario, Raynaud's phenomenon can lead to complications such as digital ulcers, necrosis, and ischemia, for which its identification is crucial to avoid them.¹

The first step for the identification of Raynaud's phenomenon is a correct anamnesis, considering the clinical similarity with other acrovascular syndromes. The most practical tool is the application of the screening questions proposed by Maverakis et al. in an international consensus of experts, to subsequently assign a specific score.²

A second step in this process would be to perform a videocapillaroscopy of the nail bed, a gold standard to differentiate between a primary and secondary Raynaud's phenomenon. The capillaroscopy service of the *Clínica Universitaria Bolivariana*, located in Medellín (Colombia), has performed more than 2200 videocapillaroscopies since the year 2015. Four basic capillary aspects are evaluated in this procedure: density per millimeter, dimension, alterations in morphology and presence of microhemorrhages. A single megacapillary (capillary with an apical diameter greater than or equal to 50 μ m), in a clinical context suspicious of systemic sclerosis, confirms on many occasions this diagnosis, and this finding substantially helps its early detection.

If a primary Raynaud's phenomenon is confirmed with a normal capillaroscopy, the need for multiple unnecessary

diagnostic aids that increase costs and create distress for both clinicians and patients can be obviated.

Other "indications" for this procedure would be the high titles of antibodies, especially patterns related to systemic sclerosis (nucleolar, centromere, AC-3, 8, 9, 29) and the follow-up of subjects with undifferentiated connective tissue disease who have Raynaud's phenomenon.

When videocapillaroscopy of the nail bed is compared with other imaging tools (ophthalmoscope, dermatoscope, USB devices, stereomicroscope), which are less expensive and require only basic training, there is a good correlation with the key findings that make us suspect, especially, systemic sclerosis.³

Taking into account that videocapillaroscopy offers fundamentally structural information, work has been done on techniques that allow a complementary functional evaluation, and in this context thermography has emerged as a method that illustrates the dynamics of the vascular response, because it makes evident the absence of recovery of normal temperature in patients with secondary Raynaud's phenomenon. Initially, thermography devices were only found in research centers, but they have subsequently become more widespread thanks to the mobile devices, which has generated greater affordability and use.

In this issue of the Colombian Journal of Rheumatology (*Revista Colombiana de Reumatología*), Chaparro et al. carried out a rigorous, complete and updated systematic review of the literature on capillaroscopy and thermography for the detection of vascular changes in Raynaud's phenomenon. The main conclusion of this interesting work is that it is not possible to compare the results of both techniques. Likewise, the authors highlight the role of thermography in differentiating healthy patients from individuals with Raynaud's phenomenon and they consider that this technique could offer an advantage in the evaluation of pediatric patients, avoiding the technical

difficulties of performing videocapillaroscopy in this population group, in addition to the high frequency of artifacts that prevent its performance in children.

Current evidence suggests that both techniques (capillaroscopy and thermography) are synergistic in both the structural and functional evaluation of Raynaud's phenomenon and that thermography could become an outcome measure in the characterization of primary and secondary Raynaud's phenomenon, as well as in the measurement of the efficacy of different pharmacological measures.⁴

The future research agenda on this subject should include the definition of homogeneous thermographic functional patterns, in addition to studying the correlation of the different instruments used to perform this functional technique, which could show a propitious panorama to position thermography as the technique of choice in the functional evaluation of Raynaud's phenomenon, which, without a doubt, is a sentinel event in rheumatology.

Conflict of interest

The authors declare that they have no conflict of interest.

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