Retinal microcirculation plays a central role in the diagnosis and therapeutic monitoring of Horton's Autoimmune Arteritis.

By Sergio Stagnaro

There are different ocular manifestations of giant cell temporal arteritis. In rare cases it can cause an ischaemia of the anterior eye segment or chorioidal infarctions. Especially in combined occlusions of the retinal and choroidal vessels, Horton's disease must be ruled out because of the high risk of blindness in one or even both eyes. Therefore early diagnosis and treatment of Horton's Autoimmune Arteritis is important.

I have been dealing with Polymyalgia Rheumatica and Horton's autoimmune arteritis since the early 1980s, discovering a variant form, I named Acute Benign Variant of Polymyalgia Rheumatica (1-3).

The clinical diagnosis of rheumatic polymyalgia is easily made on the basis of numerous and characteristic signs, bedside detected with the Quantum Biophysical Semeiotic, starting from its initial stage (3).

Furthermore, with the help of this fundamental diagnostic method, I've discovered and described, for the first time, the acute benign variant of polymyalgia rheumatica, brought about by flu viruses (9-11) in individuals positive to Rheumatic Constitution (2, 3).

There are symptoms in common and differences between the Acute Benign Variant PR and the classical P.R. The following phenomena are in common: The mitochondrial impairment, heritable through the mother, i.e. Congenital Acidosic Enzyme-Metabolic Histangiopathy (CAEMH), which is always present in both forms. In other words, the patients show, from birth, an intense impairment of mitochondrial activity, of terminal metabolism, that is, of oxidative phosphorylation with slowing of the flow of electrons in the respiratory chain and, therefore, reduction of the phosphorylated substrates rich in energy cells.

The CAEMH is the conditio sine qua non of immune-based diseases, suggesting a close relationship between HLA and CAEMH. The female sex is affected by preference: 60 out of 67 cases observed were women (90%); the sterno-clavicular and manubrium-sternal body synchondrosis are typically involved: no other disease affects these structures except for ankylosing spondylitis. The fact further suggests the possible existence of a relationship between HLA and CAEMH.

In both forms of P.R. large proximal joints are affected exclusively or preferably; it is possible to observe (personal experience) classical P.R. in parents of patients with P.R.A.B.V. In one woman, the classic form appeared after 7 years. from the healing of a variant benign acute form. For obvious reasons, nothing conclusive can be reported on this interesting topic: the nature of both forms is clearly immune. These six facts allow us to define the acute benign variant form as "polymyalgia". These are the differences between the forms of P.R., some points must be considered: age of patients: the classic form is known to affect women (and men) over 60 years old. of age. On the contrary, the P.R.A.B.V. involves especially women under 55 years old.

In the personal case series 50 times there are patients in this age, equal to 75%. In the opinion of the writer, however widely shared, the age factor gives particular characteristics to clinical phenomenology, although in the presence of identical etiological agents and of the same constitutional substrate - HLA or CAEMH. Although the large proximal, rhizomelic joints are most intensely affected, the distal ones also show quantum biophysical semeiotic signs of suffering, of decreasing intensity towards the periphery.

The cause of the acute benign variant forms is certainly viral: the viral flu episode always precedes the onset of P.R. acute (3). Studies following the writing of the paper have shown that autoimmune diseases, including P.R.A.B.V., affect only individuals carrying CAEMH, characterized by right brain dominance (2). The etiology of P.R. classical is still uncertain even if there is insistence on viruses, in particular, HBV, as already mentioned.

The clinical picture of the form described here is dominated by chest pain, localized, unilateral and by the consequent anxiety of the P.

The therapy of the two forms is different: while cortisone drugs are the therapy of choice of P.R. classical, the acute benign variant form reaches complete recovery, in about 10 days, under anti-catarrhal vaccine treatment.

Considering the anatomic relationships existing between the temporal artery and retinal vessels, I have conjectured that the existing modifications in the retinal microcirculation could represent a valuable tool for the early bedside diagnosis and therapeutic monitoring of giant-cell Horton temporal arteritis (4-8).

As clinical and experimental evidence demonstrates, the occlusion of an artery by digital growing pressure causes downstream Type I, Associated Microcirculatory Activation, which turns into type II and finally III, i.e., completely dissociated, when the blood flow is reduced to levels critics, bringing about tissue damage (4-8).

In classical and variant polymyalgia rheumatica (1-3), the normal microcirculation of the eye excludes the giant cell temporal arteritis.

On the contrary, retinal Microcirculatory Activation, type I Associated demonstrates the presence of Horton's autoimmune arteritis, starting from its initial stage.

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