THE PROBLEMS RELATED TO RHEUMATIC FEVER remain an old challenge, but as we enter the 21st century, they demand a new approach, taking into particular consideration the difficulties in the diagnosis and treatment. The profile of this disease, involving multiple systems of organs, depends on the severity, association, and predominance of the manifestations, thus resulting in a wide range of presentations. Sadly, there are neither pathognomonic clinical features, nor specific laboratory tests. From a historical perspective, since the characterization of "the acute rheumatism" in the 17th century as being different from other rheumatisms, several authors independently described the clinical manifestations of rheumatic fever. Despite these efforts, it took two centuries for Cheadle to identify them as part of the same disease. No modifications have subsequently been incorporated into this clinical profile. And, although the same author assigned the determination of a genetic pattern of susceptibility to the disease, the pathogenesis has still not been completely elucidated. At the beginning of a new millennium, therefore, rheumatic fever remains worldwide as an unsolved problem of public health.

Considering the high incidence, severity, and the necessity of unifying the diagnosis, Jones, in 1944, assembled the clinical and laboratory manifestations to create a guideline for diagnosis. Later, these Jones criteria were modified, aiming at minimizing over-diagnosis. The three subsequent revisions have added more detailed information by introducing changes based on clinical observation, and have enhanced the specificity of the diagnosis by requiring supporting evidence for the antecedent streptococcal infection. As regards the incorporation of new technology to improve the accuracy of the diagnosis, however, few contributions have been registered. After a long period since the original criterions were proposed, the updated revision, published in 1992, highlighted the exceptions to the criterions, recognising that the risks of underdiagnosis would be higher facing the requirement of a strict adherence to the criterions in three conditions: indolent carditis, chorea as the only manifestation of the disease, and recurrences. The adequacy of the previous statements has also been recently assessed, and the conclusion was reached that, based on the available data, there was insufficient evidence to support a revision of the Jones criterions for first episodes, especially regarding the introduction of new clinical criterions and diagnostic techniques.²,³

Despite all the investment, the disease continues to challenge all those involved with its diagnosis and
poststreptococcal reactive arthritis. Are their sequels cal valvitis, subclinical chronic valvar disease, and invalidating recently introduced conditions such as subclinical valvitis based on the current echocardiographic criteria, receive the same therapy in the acute phase, and the same scheme for prophylaxis, as those with clinical findings of cardiac involvement? Could the difficulties in identifying the acute phase of patients with rheumatic chronic cardiac disease also be attributed to a subclinical course of carditis? Should the potential risk of developing significant valvar lesions, and the necessity for surgery, be reduced by the identification of a subclinical valvar lesion in those patients? From these uncertainties, other questions emerge, such as the impact of actions on the different realities around the world regarding the economic aspects and epidemiological data. The answers to these questions will only be found through prospective investigations, the results of which will determine the most convenient approach. As emphasized by Kaplan5 “clinicians and scientists there have both the opportunity and the obligation to further the understanding of this enigmatic disease, and then to implement these advances into practical techniques for improving the cardiovascular health of a significant proportion of children in the world today”. Fortunately, a more intensive movement on this direction has now been registered, proved by the publication of three investigations in this issue of the Cardiology in the Young.6–8 The recent data have shown a larger number of patients with subclinical valvitis, enhancing the quality of information. Additionally, the first publications regarding a longer follow-up seem to show a similar pattern of evolution found among patients with clinical manifestations of the cardiac involvement during the acute phase of rheumatic fever.6,7,9,10 On account of the available information, although not recognized as complete, we should be cautious, and offer the same therapeutic approach for both groups of patients, considering the risks and implications on prognosis, mainly in those areas retaining a higher prevalence of rheumatic fever.

Faced with these dilemmas it is, therefore, essential that a renewed interest must be addressed to research in both the developed and developing world. Only in this way we will increase our understanding of this important disease, giving the answers for these new questions, as well as perhaps for the old ones that remain unanswered.
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