Endodontics is fascinating. I will put aside the romantic view that endodontics is an art and assume that it is an ever-growing science that requires a great deal of study and training to reach a high-level clinical performance. I dare say that no other clinical discipline in dentistry requires such a vast knowledge of and integration with so many other clinical and basic disciplines.

As a clinical health-care discipline, endodontics is concerned with the promotion of oral health and primarily deals with prevention and treatment of apical periodontitis. Every patient who enters our office is confident that we are well prepared to apply the most effective treatment protocol available to reach that goal. Unfortunately, this may not be true. Epidemiological studies reveal a very low success rate (40 to 60%) of endodontic treatment in the general population. The majority of failed (or diseased) teeth are poorly treated. The need for a complex background of knowledge and the technically demanding nature of endodontic procedures may help explain such an overall poor performance. However, the potential for success is very high (85 to 95%), as demonstrated by well-controlled, university-based studies. This rate is amongst the highest for any treatment in any health-care discipline. This keeps our hopes high. The challenge for the specialty now is to transfer this high success rate to the general population.

One of the possible solutions is to encourage the development of treatment procedures or protocols that are user-friendly and effective in order to allow more clinicians to be able to offer optimal outcomes. This would make endodontics more 'democratic' in terms of predictability. In a thought-provoking paper by Morgan and Alexander published in roots 2/10, the authors discuss the issue of applying scientific knowledge to improve clinical practice. Dr Irving Naidorf had discussed this 40 years ago and it is still significant today. Integrating scientific knowledge and clinical practice is certainly required to maximise the success rate, but this approach might well also be used to develop alternatives to improve the quality (and consequently the outcome) of treatment in the overall population.

In spite of the huge amount of scientific information about the aetiology and pathogenesis of apical periodontitis generated over the last three decades, this knowledge has not been translated into a significant improvement in endodontic treatment outcomes. This is because clinical technology and treatment protocols have not been devised or even slightly modified on the basis of this booming biological knowledge. Science has provided a great deal of information on the nature of the problem, so the time has come for this knowledge to be used by endodontic scientists and clinicians to find a better, affordable and less technically demanding approach that can still predictably treat our patients. In an ideal world, there should be no dichotomy or dispute between research and clinical practice. In a clinical discipline like endodontics, research should be mostly intended to find and test ways for the best treatment and to improve the quality of life, while clinicians should use this scientific knowledge to improve their practices. Denying the importance and advances of the other is arrogant, nonsense, selfish and counterproductive.

In contrast to the many Doomsday prophets, we can foresee a bright future for endodontics. It’s up to us.

Yours faithfully,

Prof José F. Siqueira Jr.
Professor and Chairperson, Department of Endodontics, Estácio de Sá University
Rio de Janeiro, RJ, Brazil