The evolution of imaging diagnostics for Orthodontics

In the 1970s, the electronic technologies deployed for space exploration launched a veritable revolution in imaging diagnostics capacity—especially in the field of computer tomography. It is curious to note that before we were able to delve deeper into the human body we had to first travel into space.

This giant leap rapidly spread to encompass several areas, as equipment improved and new applications were developed. For example, contrasts are now used to show the path of blood vessels, and once scanning became fast enough, we acquired the ability to capture a still image of the heart to assess possible coronary stenoses.

A major technological advance was achieved with the development of Cone-Beam Computed Tomography, better known by the English acronym CBCT. This tomograph boasts unique features far superior to a conventional CT scanner. The apparatus is more compact and produces fewer artifacts on metal objects, while its radiation dose is about 15 times milder than that of a conventional CT scanner. These features have made it an outstanding resource in Dentistry, and help to explain its current worldwide use.

The distance traveled by imaging diagnostics technology has been remarkable, and this journey has given us a fresh insight into Orthodontics. We therefore decided to organize a special anniversary edition comprising exclusively articles related to imaging diagnostics. Dr. Telma Martins de Araujo’s contribution as associate editor of the journal proved invaluable in making this issue come to fruition. She aimed at a format that would feel as closely as possible like reading a book. As a result, in one single issue, readers can enjoy a multifarious, in-depth view of the role of imaging in Orthodontics.

Enjoy your reading!

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In August, when professor Omar Gabriel da Silva Filho was hospitalized, I stopped to ponder on the contributions of this great orthodontist, whom I knew not well, although paradoxically, always felt I knew a lot. The first thing that sprung to my mind was the gorgeously compelling speech delivered by writer José Saramago on being awarded the Nobel Prize for Literature in 1998. It was titled "How Characters Became the Masters and the Author Their Apprentice." In it he portrays with subtle poignancy how much a master can learn. A much praised, albeit seldom practiced virtue. And a hallmark of Prof. Omar’s life.

I was never Prof. Omar’s student, although in many respects I feel as if I have been. Allow me to explain. When I completed my orthodontic training at Rio de Janeiro Federal University (UFRJ), I had but a handful of idols. Among these was Omar, a teacher I had seen only once, and who had charmed me with his down-to-earth, didactic and investigative spirit. At the time, he was one of the few researchers who managed to pass the stringent filters of international journals.

He has always been a stickler for protocols. Today, with over 200 published works, he has established many which are used internationally. Interestingly, this was a forward-looking concern. Evidence-based practice longs to create protocols, and at a time when scientific evidence was still embryonic, his pursuits could be seen as cutting edge even today.

Omar trained many orthodontists, and all those I have talked to over the years were unanimous in their admiration of his inability to say no, and the friendly and respectful way in which he treats students, staff and patients alike. He never speaks ill of other people, and always respects their differences.

I was informed by a friend—Dr. Patricia Freitas Zambonato—about Omar’s health condition just before writing these words. She told me it was serious, but stable. The doctors’ uncertainty about his diagnosis and prognosis only strengthens our hopes. Some of my friend’s sympathetic words about her teacher sounded particularly touching: "Omar is an Angel, who is only capable of doing good," she said.

We are praying for angels to hold his hands.

Jorge Faber

REFERENCES