

# E D I T O R I A L

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The decision that the editorial board has taken at the urging of Julien PHILIPPE to celebrate the anniversary of the death of Pierre FAUCHARD symbolizes not only the respect we owe to our forebears for the knowledge they have transmitted to us but also pays tribute to the formidable progress modern orthodontics has accomplished.

And it is upon the remarkable strides our profession is making that we want to focus our attention in this initial editorial marking the beginning of the year for the Revue d'O.D.F, especially in our clinical practice, our teaching programs and research projects that we are carrying out at the Department of Orthodontics of the Dental Faculty of the University of Lyon. Our students in the Cecsmo program have benefited from rigorous instruction in the Tweed and Bioprogressive techniques. And we have been able to treat thousands of patients with methods that continuously improve as we regularly infuse them with the latest information derived from scientific investigation. It is our fundamental belief that we must devote ourselves to keeping informed and applying what we learn to insure a steady improvement of our daily clinical practice of orthodontics.

**The first topic** that we should like to evoke is the treatment of adolescents whose facial growth will continue and, eventually, be subjected to the changes brought about by ageing. We assert, to begin with, that orthodontic diagnosis must nowadays devote a major part of its attention to the faces of patients, to their smiles, and, also, to the way these structures will change and develop in the future. To achieve this objective orthodontists must carefully analyze the faces of their prospective patients and predict how they will be transformed during and after treatment in accordance to initial facial type and, also, in reaction to the effect ageing will have on osseous and cutaneous profiles. The cold calculations of arch length and cephalometric configurations are only two parameters of a long checklist that orthodontists must assess in their diagnostic procedures.

**The second topic** we shall elaborate is most important: it is the question of extractions in orthodontics. Many orthodontists have become convinced that the therapeutic removal of sound teeth is a mutilation and should be used only in cases of bimaxillary protrusion with anterior open bite or of severe dental crowding. Furthermore they believe that the traditional extraction of bicuspids to assist the treatment of Class II malocclusions is today hardly ever appropriate. Instead, they assert, non-extraction therapies such as the Distal Active Concept, distalisation techniques, Class II growth activators, and lip bumpers give satisfactory results in the treatment of Class II malocclusions. They also state that expansion treatment is an acceptable option in cases where there is no risk of causing periodontal damage. But in some carefully selected questionable cases, they say the best cautious and prudent procedure is to begin treatment early with mechano-therapy for six to nine months and then, in consultation with patients and parents, re-evaluate the case to see if extractions might be indicated in the effort to obtain the best possible soft tissue profile. Furthermore we are now more than ever convinced that molars should only rare instances such as their being weakened by endodontic

diseases, be removed as an adjunct to orthodontic therapy because their extraction causes too great a reduction in the masticatory coefficient and the long-term stability of the dentition.

The indications for surgical intervention in orthodontics are the third point we wish to discuss. Even if patients and parents are willing to accept a compromised outcome, they should be clearly informed of what advantages surgical intervention could bestow. Failure to do so could leave practitioners exposed to future criticism or even litigation. Treating extreme cases adequately by orthodontics alone should not be considered proof of a practitioners' skill but instead suggest neglect for not having combined their therapy with orthognathic surgery that could deliver the balanced and stable result that orthodontics alone could not obtain.

Surgeons have been able to greatly refine their techniques since the advent of screwed-in plates to stabilize osteosynthesis. We have witnessed the progressive disappearance of indications for segmented osteotomies. The utilization of "piezosurgery", the introduction of corticotomy techniques, miniscrew anchorage, and the *en masse* distal movement to correct initial dento-alveolar compensations of the type Junji SUGAWARA presented have greatly increased the stability of surgico-orthodontic treatment and also decreased treatment time and considerably reduced the need for extractions in pre-surgical orthodontic procedures.

The fourth subject that we consider well worthy of being discussed is, of course, treatment of adults, a field in which great improvements have been made. Treatment plans must be reasonable and acceptable in length and practicality for the increasing number of older patients seeking orthodontic care and the promise of relatively painless treatment must be an important factor in the choice of an always be individualized and often multi-disciplinary therapy. When practitioners fail to find an appropriate approach but instead choose a therapy that is inopportune or overly ambitious they could transform a case of average difficulty into one that is excessively complex.

With modern techniques orthodontists can now successfully treat some patients with periodontal deficits but for these patients, practitioners should refrain from attempting major tooth movements that present the short-term risk of loss of dental units. For adult patients orthodontists do not need to close all spaces left by missing teeth, or to perform other operations that could better be accomplished by means of implants or prostheses. The advent of implants has freed orthodontists from the temptation to perform difficult procedures that put tooth roots in danger or unnecessarily prolong treatment. Instead an orthodontist and patient, in full and frank consultation, may accept a compromise result as the individualized optimum for that patient and that situation.

Summing up, we can only urge you seek continual improvement in the exercise of your professional responsibilities and to look forward to the introduction of new and more effective therapies even if you are convinced of the superb efficacy of the treatment you already deliver. In the words of the Coleman and Leigh song that Frank Sinatra made popular, "The best is yet to come." We should also bear in mind that even though Edward Hartley ANGLE thought the upper first molar was the key to occlusion and that all occlusion had to be based upon it, today we are able to move this tooth only, 2 mm in adult Class II malocclusions treatments. Actually, that key tooth cannot be distally moved during the growth period. ENLOW has argued that the maxillary tuberosity, the primary growth center, stimulates mesial movement, which opposes the forces that orthodontists may apply to that key tooth. Numerous recent studies

by many authors, including B. MELSEN, A. DECKER, and J.-J. AKNIN, after serious epidemiological research, have shown that upper molars cannot in fact, be moved distally, thus supporting ANGLE'S theories. Accordingly, the confirmed experience of certain respected authorities can be integrated with Evidence Based Medicine, which, in 2010 has been accepted as the necessary foundation for progress in the practice of clinical orthodontics.

Pierre FAUCHARD established the foundation for the evolving structure of dental medicine that generations of clinicians sustained by eminent researchers have selflessly continued to build by sharing their knowledge.

The Revue d'O.D.F in publishing this information is perfectly fulfilling its mission: to serve as an indispensable instrument for the dissemination of scientific information.

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