Orthodontics—With and Without Surgical Assistance

In synchrony with the 6th IOC in Paris in September 2005, this issue of the WJO, now the official journal of the WFO, leads off with “Ethics and Fraud in Science: A Review of Scientific Misconduct and Applications to Craniofacial Research” by Ellades, Athanasiou, and Papadopoulos. This article highlights a superb challenge to us all. To maintain the highest standards from all parts of the world, this article will be sent to authors of all manuscripts submitted in the future.

The advances in orthodontic materia technica have extended both the scope and success of our therapeutic efforts. As one who started out treating every case with the Procrustean Bed Appliance—28 gold bands with Angle edgewise brackets in the center of each facial surface and mesial and distal eyelets meticulously soldered on mesial and distal, alongside the brackets—I can say we’ve come a long way. Edward H. Angle proudly described his 1925 edgewise appliance, patented by S.S. White: “It is the latest and best—about as perfect as I can make it,” with a 0.022 x 0.028 slot and a tightly fitting 0.022 x 0.028 edgewise archwire. P. Raymond Begg, a student of Dr Angle at that time, actually machined the first edgewise bracket. A historical tour de force! In 1945, when I started in orthodontics, it was still the latest and best. Tweed disciples still think so.

Ironically, the first beautifully treated case in this issue, “Nonsurgical and nonextraction treatment of a skeletal Class III adult patient with a severe prognathic mandible,” by Etsuko Kondo and and Shiho Arai of Japan, was treated with the Begg appliance. This was the upside-down ribbon arch that preceded the edgewise “latest and best.” As is so often the case, “It is not the appliance, but how you use it, when, why and for how long!” Could it have been equally as successful with the edgewise appliance? Probably. I used both the ribbon-arch technique and edgewise appliance during the 5 years I was associated with the venerable Dr Frederick B. Noyes.

Jon Jin-Jong Lin of Taiwan asks an intriguing question in his “Do teeth want to be straight? A nonsurgical approach to unerupted teeth”. The author discusses nonsurgical management of nonpalatally impacted canines, with a total of 4 impacted maxillary canines in 3 patients. The nonsurgical approach illustrates the viability of conservative options in carefully selected cases. Diagnosis is the name of the game!

Mauro Cozzani, Daniela Lupini, and Guiseppe Siciliani of Italy demonstrate the early treatment of an ectopic tooth, using a light force technique, uncontrolled forces, and finishing with a second phase of treatment, planned for the dental Class II, right subdivision and deep bite malocclusion, using the bidimensional edgewise appliance. Here again, therapeutic diagnosis is the name of the game.

“Microscrew implant anchorage sliding mechanics,” by Hyo-Sang Park, Oh-Won Kwon, and Jae-Hyun Sung of Korea, combines surgical placement of microscrew implants, a minimally invasive mechanism that prevents loss of anchorage in retraction of anterior teeth that normally occurs with conventional orthodontics-alone techniques. Sliding mechanics are shown to be simple and effective.

Orthodontics clearly is not an island unto itself. Tülin Arun, Korkmaz Sayinsu, and Didem Nalbantgil of Turkey describe an orthodontic approach for patients with severe periodontal disease. This comprehensive analysis of varying degrees of tissue loss and the best appliances for the problem is valuable for treatment of all periodontal patients. A 50-year-old male patient with severe periodontal involvement is chosen to illustrate the complexities and need for permanent retention.

Aldo Giancotti, Alessandro Caleffi, and Gianluca Mampieri of Italy provide an excellent example of permanent retention in periodontally compromised patients, showing the Targis-Vectris technique. The components of this technique are described. An adult female with a full Class II malocclusion, compromised periodontal status, and significant bone loss is described. Again, a fiber-reinforced splint was used when the time came for debonding, to enhance long-term stability. The 5-year posttreatment follow-up of the patient is shown, with the results remaining stable. Patients like this often require additional periodontal care, however.

Tawfik Al-Tamimi and Hayden A. Hashim of Saudi Arabia remind us of the importance of careful diagnosis in their article, “Bolton tooth-size ratio revisited”. Their study included 65 subjects (37 males and 28 females, ranging in age from 18 to 25 years). All had a normal occlusion and no orthodontic treatment. No statistically significant differences were found in the criteria analyzed. Interestingly, the authors felt that the Bolton prediction tables can be used for the Saudis, until a large enough sample could be studied to permit prediction tables.

Björn Zachrisson’s always- enlightening Ask an Expert section addresses clinical outcomes with mandibular second versus first premolar extractions in orthodontic treatment. The beautiful illustrations and his sound reasoning and experience serve to answer this problem in orthodontic treatment.

Tech Notes, under the direction of Larry White, introduces new products of interest. Carla Evans brings us to Egypt, for the Egyptian solution to a brain drain, where there are 2 avenues leading to orthodontic specialization. In Abstracts and Reviews, Ahmet Keles delivers the goods on the latest and best in orthodontic literature.

Two orthodontic giants are recognized in this issue as well. Samir Bishara interviews P. Lionel Sadowsky for his reader-favorite section. From France, Nicole Gasson brings us an intimate portrait of her late father and collaborator, the world-renowned scientist Alexandre Petrovic.

Read, learn, and enjoy!

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