

Book Reviews

Orthodontic management of agenesis and other complexities. An interdisciplinary approach to functional esthetics (2003)

Author: Michael Arvystas

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This book is presented with the purpose of offering practical advice to the orthodontic practitioner, faced with some of the more unusual cases seen in day-to-day orthodontic practice, and is particularly concerned with the aesthetics of the treated result.

The first chapter reviews theories developed over the years on perspectives and proportions of beautiful faces and refers to the most useful objective principles that the clinician may apply to evaluate and improve dental aesthetics in his/her cases, in predictable ways.

The book serves two basic purposes. First, it tackles the specific problem of agenesis of single or multiple permanent teeth, from an orthodontic perspective. These cases pose difficult and challenging orthodontic problems and the volume illustrates them with many full colour clinical photographs of several good cases, treated by the author.

Chapters 2 and 3 of the book follow a logical progression, from analysis and diagnosis to treatment planning of cases with agenesis of lateral incisors and premolar teeth. The author thoroughly reviews the treatment possibilities, in terms of orthodontic closure versus space opening for future rehabilitation, and the diverse options of prosthetic interim and definitive restorations. However, while the five illustrated cases of missing lateral incisors presented differ mainly by the final restorative treatment, they offer the same orthodontic approach—they are all cases of orthodontic space opening. In common with many North American orthodontists, the author strongly opposes orthodontic space closure, because the ‘...arch form is condensed and constricted..., the proportionality of the maxilla to the face is altered...’ and ‘black triangles’ are generated during full smile of the patient. Its disadvantages are extensively described, but the advantages largely overlooked. This attitude is not adequately justified, since space closure may be a viable alternative in many specific cases, as proposed by many orthodontists on this side of the Atlantic. Progress in implantology, in recent years, has improved the clinician’s ability to successfully restore patients with partial anodontia using implants, but is it suitable for all our patients? Attitudes in Europe do not fully concur with the author’s view. A recent investigation (Robertsson and Mohlin, 2000) has shown that, in general, subjects treated with orthodontic space closure were more satisfied with

the appearance of their teeth than those treated with space reopening and prostheses. The study found that patients with prosthetic replacements tended to suffer from impaired periodontal health with accumulation of plaque and gingivitis, when compared with those in whom spaces were closed. Furthermore, there are immediate and long-term financial implications of both these alternatives, which should be taken into account. Failure to adequately present the case for this approach to treatment, in relation to incisor teeth, represents a major limitation of this chapter.

Regarding congenitally missing second premolars, treatment options include keeping the primary second molar, extracting the primary molars and allowing the space to close spontaneously, prosthetic replacement, and orthodontic space closure. The six cases presented are much more balanced and illustrate each of these treatment options well.

Autotransplantation is a possible alternative in some of these cases, but this modality is not described in the text. True, the approach has not found favour with North American orthodontists, but it is nevertheless a relevant treatment option for many of these problems. For the sake of completeness of a volume such as this, a description of this alternative would have been valuable, even if it meant recruiting the editorial services of a Scandinavian colleague, experienced in the method.

The second aim of this book is dealt with in the remaining chapters, where the author offers his own *modus vivendi* with specific conditions in adults, with emphasis on various types of severe facial problems. Chapter 4 presents two different cases of adult interdisciplinary treatment, while Chapter 5 includes four long face syndrome cases, in which a combination of orthodontics and surgery was required to permit their successful treatment. The last chapter includes a number of orthodontic cases, which were specifically chosen by the author on the basis of their complexity and their challenging diagnoses and treatment plans.

Most of the photographs are of good quality, although there are some which do not reach an acceptable standard, including several of the radiographs. The illustrations could have benefited from careful cropping and re-orientation. For the most part, cephalometric films are not shown. For several of the cases, either the

pre- or post-treatment films are presented, although the absence of tracings, superimpositions and a modicum of comparative measurement detracts from what would seem to be a minimum requirement, when full case presentations are the essence of the book.

Overall, the author recommends distal movement of the posterior teeth with 'non-compliance' appliances and with Class II intermaxillary traction mechanics, in order to achieve the required space for prosthodontic incisor replacement. These methods always lose some anchorage, however minimal, and perhaps require the placement of fixed retainers on the mandibular incisors. Retention of the treated results and ways of combining the aesthetic demands of fixed prosthodontics with the need for long-term orthodontic retention, are important issues in these cases and would justify some discussion.

Since these cases depend on close co-operation between the orthodontist and other dental specialists, a little input from the prosthodontist, the periodontist, the oral surgeon and the implantologist would have provided useful insights into the immediate relevant issues that they face in these patients. Thus, the pessimistic results of early studies on the relative success rates of resin-bonded fixed prostheses (Maryland bridges), for the rehabilitation of missing lateral incisors have discouraged many prosthodontists from considering the method as a permanent solution. Since the author clearly favours this method, perhaps it would have been good policy for him to have provided the reader with some update on specific refinements that are advised, to improve their

longevity. Similarly, when to open spaces and when to close spaces may be directly influenced by implant considerations, such as the width of available alveolar bone and the possible need for surgical sinus floor elevation.

The author is to be commended on the treatment results in many of his cases, and the results achieved—in particular, his professional management of asymmetric space closure cases, finished with midline coincidence, despite the one-sided mechanics. The time and effort consumed in gathering them and writing this book must have been considerable, but it was clearly a labour of love. The book is a very personal account of how an experienced orthodontist approaches the more unusual conditions that have turned up in his office over the course of many years in practice. These cases often defy standardized rules and answers. The author shows how to apply a degree of original thought and ingenuity to a treatment plan, in order to achieve the desired result. Dr. Arvystas's book is recommended for any orthodontist or orthodontic resident who will surely come across these cases sooner or later.

Stella Chaushu

Reference:

Robertsson S, Mohlin B 2000 The congenitally missing upper lateral incisor. A retrospective study of orthodontic space closure versus restorative treatment. *European Journal of Orthodontics* 22:697–710

The influence of oral habits on the developing dentition and their treatment: clinical and historical perspectives, 2nd edition (2003)

Author: Erik Larsson

Editor: Samir Bishara

Publisher: Erik Larsson, Orthodontic Clinic, Mosseberg, Falköping, Sweden (www.thumbandpacifiersucking.com)

Price: €40, \$45

This slim volume is a highly readable account of the possible effects on the dentition of suckling and sucking habits. It approaches the subject from many directions—scientific, philosophical, epidemiological and clinical—but, commendably, there are no clear divisions between these—the transitions are seamless. The approach is thought provoking throughout and arguably more philosophical than many larger clinical texts.

The first three chapters relate anthropology and social history to the history of breastfeeding and other means of feeding infants. These chapters are fascinating and excellently written. They will almost certainly be educational to the vast majority of readers. My only criticism of this section of the book is on page 20, where other

Scottish readers will be as surprised as I was to read that the great William Hunter was 'an *English* doctor'!

The next three chapters deal with other 'sucking' behaviours in children from a scientific and clinical viewpoint. Again these are very readable chapters. As a neurophysiologist, I would argue with the statement (page 29) that 'Sucking habits are reflexes'. Sucking can be a reflex; sucking can be a habit; one could even say that reflex sucking can be a habit. However, I cannot think of a definition of 'reflex' which would permit a habit to be classified as a reflex. That tiny criticism apart, it is difficult to find serious fault with the author's approach in this section of the book. Indeed these chapters contain many interesting facts and hypotheses