

Etiology-Based Dental and Craniofacial Diagnostics: A Critique

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Abstract

Etiology-Based Dental and Craniofacial Diagnostics by Inger Kjaer.

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Introduction

The advent of this awkwardly-titled book combining fetal pathology with craniofacial and dental dysmorphology provides an unusual link of anomalous deviations of development with congenital clinical diseases. The collection of anatomical abnormalities portrayed in this book is reminiscent of the "Kunstammeret" [1] or "Cabinet of Curiosities" of the 17th Century, wherein oddities of nature were displayed in museums.

The writing style is rather condescending that assumes little background knowledge of the reader, "If you ask a dentistthey will probably not be able to answer you" and as if lecturing..." We now focus...." rather than formal factual statements. Some unorthodox anatomical terminology creates confusion when the term "theca cranii" does not describe the calvaria used in most anatomy writing. The richly illustrated text is a combination of drawn diagrams, microscopic sections, radiographs, whole mount fetal specimens and skulls depicting pathological lesions and anomalies. Regrettably, many of the referenced embryology textbooks are outdated by more recent editions that should be expected in a new and up-to-date reference source.

The author's fetal pathology and orthodontic expertise furthers the anatomical observations of her Danish predecessor embryologist and physician, Professor Ole Worms, who is commemorated in the Wormian bones of the skull.

The book is composed of 17 chapters covering skeletal, craniofacial, and neurocranial development, developmental fields, anomalous dental development, craniofacial dysplasias, and concluding with clinical cases and challenging unanswered questions. Each of these chapters is subdivided into varyingly detailed expositions of anatomical structures from diagrammatic depictions, photographs, X-rays

and histological examination to clinical presentations. The dentally orientated chapters constitute the largest component of the work, providing a conspectus of odontology ranging from development, eruption, periodontal conditions and details of anomalies.

In this era of genetic based revelations of dysmorphology, it is disappointing that little or no reference is made to the genetic and chromosomal karyotypes of the syndromes described in the text. Incidentally, eponymic named syndromes are no longer ascribed possessively to the author(s) who first described them, e.g., Down did not suffer from the syndrome after which he is named. Furthermore, "Gapo's syndrome" (Figure 10.3) does not refer to a non-existent "Gapo" but is an acronym for Growth retardation, Alopecia, and Pseudo-anodontia. Misspelling of the Goldenhar syndrome (Figure 1-11) and in the index, is unfortunate and could have been avoided by meticulous proof reading.

This book adds to the wide compass of teratology and anomalous anatomy that is indicative of the multiple deviations of human morphology. It constitutes an addendum to Bergman's Comprehensive Encyclopedia of Human Anatomic Variation [2] and the articles published in the International Journal of Anatomical Variations [3].

In summary, while this book adds to the enormous contributions made by the author to the literary canon of fetal pathology and craniofacial dysmorphology evidenced in the "Further Reading" appended to each chapter, it disappoints in its omission of the genetics and embryogenesis of the dysgeneses it describes. It should be used in conjunction with Gorlin's Syndromes of the Head and Neck [4] and "Craniofacial Embryogenetics and Development" [5] to obtain a more comprehensive understanding of the burgeoning field of craniofacial maldevelopment.

The identification by the publisher of this being the first edition of this title leads one to hope that a second edition might follow that amends the errors and omissions revealed in this review.

Conflict of Interest

No conflict of interest exists.

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