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David Tauber · Jason Ulm · Alan Yan
Michael J. Yaremchuk *Editors*

Clinical Diagnosis in Plastic Surgery



Springer

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Preface

Plastic surgery is a visually oriented surgical specialty. Laboratory investigations may be important in preparation for, or recovery from, surgical treatment of a clinical problem – but, most often, are not crucial in making the clinical diagnosis. The majority of diagnoses are made through visual inspection. This atlas is a collection of clinical photographs depicting clinical findings which warrant a plastic surgeon's evaluation and possible surgical intervention. Accompanying each photograph (which we believe is worth a thousand words) are a few words describing the clinical problem including its typical presentation, symptoms, further diagnostic measures, treatment options, and recent references from the literature. Photographs of clinical problems are categorized by anatomic area including the face and facial skeleton, the hand, the integument, the breast, and the trunk.

The Atlas of Plastic Surgical Diagnoses is not only intended to benefit the patients of plastic surgeons in training, but also those who present to other medical and surgical practitioners for diagnosis and appropriate referral.

The authors are grateful for the many contributions to this Atlas from both the staff and residents of the Harvard Plastic Surgery Training Program. We are especially indebted to faculty members Amir Taghinia, MD; Arin Greene, MD; Bonnie Padwa, DMD, MD; Brian Labow, MD; Sam Lin, MD; Eric Liao, MD; and Simon Talbot MD. We are especially grateful to Professor Nivaldo Alonso, MD (Faculdade de Medicina de Universidade de Sao Paulo), who graciously shared his extraordinary collection of craniofacial deformities gleaned from his extraordinary clinical experience.

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To my father...

Whose strength, courage, wisdom, love and support guided me to where I am today.

Mohamed Amir Mrad, MD

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1.1 Craniofacial, Congenital

1.1.1 Deformational Plagiocephaly

(Plagiocephaly: Derived from the Greek words plagios (oblique or slant) and kephale (head)).



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History Patient presents with an acquired skull deformity, as a result of being placed in a fixed supine position for sleep.

Exam Unilateral features noted on physical examination include occipital flattening; anterior displacement of the ipsilateral ear, forehead, and zygoma; and widening of the ipsilateral palpebral fissure, causing a parallelogram-shaped cranium.

Treatment If diagnosed early, treatment that involves repeatedly repositioning the child out of the flat spot will be sufficient. Cranial-molding helmets are used for more severe cases or for those who are diagnosed late.

1.1.2 Diagnosis: Anterior Plagiocephaly (Unilateral Coronal Synostosis (UCS))



History Patients present with progressive facial deformities that are not seen with other nonsyndromic craniosynostosis.

Exam Anterior plagiocephaly is the result of unilateral coronal synostosis, characterized by superior and posterior displacement of the supraorbital rim and eyebrow on the ipsilateral side, widening of the ipsilateral palpebral fissure, frontal bossing of the contralateral side, deviation of the nasal root toward the affected side, occipital protrusion of the ipsilateral side, and flattening of the contralateral occiput.

Treatment Surgical intervention entails release of the synostosed suture with fronto-orbital advancement, usually between 3 and 6 months of age.

1.1.3 Diagnosis: Scaphocephaly (Sagittal Synostosis)



History Patients present with boat-shaped skull deformity, hence the term scaphocephaly. It is the most frequent nonsyndromic synostoses with a male predominance of 4:1.

Exam The fusion of the sagittal suture impairs expansion of the skull width. The cranium is therefore long, narrow, and keel-shaped. This is accompanied by frontal and occipital bossing.

Treatment Cranial vault remodeling with barrel-staving technique and subtotal cranial vault remodeling are the main surgical options. Endoscopic correction has been described in patients between 2 and 4 months of age.



1.1.4 Diagnosis: Trigonocephaly (Metopic Synostosis)

