

Aesthetic Plastic Surgery of the East Asian Face

Hong Ryul Jin



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Aesthetic Plastic Surgery of the East Asian Face

Hong Ryul Jin, MD, PhD

Professor and Chair

Department of Otorhinolaryngology–Head and Neck Surgery

Boramae Medical Center

Seoul National University College of Medicine

Seoul, Republic of Korea

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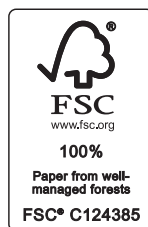
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Dedicated to those physicians who believe that a philosophy is required to change even a small part of the face.

Contents

Foreword.....	ix
<i>Dean M. Toriumi</i>	
Foreword.....	x
<i>Stephen S. Park</i>	
Preface	xi
Acknowledgments	xii
Contributors	xiii

I Introduction

1. The Changing Face of Aesthetic Facial Plastic Surgery among East Asians	3
<i>Keng Lu Tan and Hong Ryul Jin</i>	

II Rhinoplasty

2. Augmentation Rhinoplasty Using Silicone Implants.....	13
<i>In-Sang Kim</i>	
3. The Use of Costal Cartilage for Dorsal Augmentation and Tip Grafting.....	26
<i>Victor Chung and Dean M. Toriumi</i>	
4. Nasal Tip Modification in Asians: Augmentation and Rotation Control.....	47
<i>Hong Ryul Jin and Jong Sook Yi</i>	
5. Hump Resection.....	60
<i>Tae-Bin Won and Hong Ryul Jin</i>	
6. Correction of the Deviated, Twisted Nose.....	72
<i>Hun-Jong Dhong</i>	
7. Correction of the Saddle Nose	87
<i>Keng Lu Tan and Chae-Seo Rhee</i>	
8. Alar Base Modification	99
<i>Ian Loh Chi Yuan and Hong Ryul Jin</i>	
9. Aesthetic Rhinoplasty for Southeast Asians.....	108
<i>Eduardo C. Yap</i>	
10. Correction of the Short, Contracted Nose.....	122
<i>Hong Ryul Jin</i>	
11. Management of Alloplast-Related Complications	135
<i>Eunsang Dhong</i>	

III Blepharoplasty

12. Double-Eyelid Surgery: Nonincisional Suture Techniques	151
<i>Jin Joo Hong and Hae Won Yang</i>	
13. Double-Eyelid Surgery: Incisional Techniques.....	162
<i>Jae Woo Jang</i>	
14. Aging-Related Upper Blepharoplasty.....	173
<i>Hokyung Choung and Namju Kim</i>	
15. Epicanthoplasty and Aesthetic Lateral Canthoplasty.....	184
<i>Yongho Shin</i>	
16. Lower Blepharoplasty	196
<i>Yoon-Duck Kim and Kyung In Woo</i>	
17. Correction of Ptosis	210
<i>Woong Chul Choi and Juwan Park</i>	
18. Management of Double-Eyelid Surgery Complications.....	225
<i>In-chang Cho and Aram Harijan</i>	

IV Facial Bone Surgery

19. Zygoma Reduction	243
<i>Sanghoon Park and Jihyuck Lee</i>	
20. Mandible Reduction	254
<i>Sanghoon Park and Seungil Chung</i>	
21. Aesthetic Orthognathic Surgery	268
<i>Seong Yik Han and Kar Su Tan</i>	
22. Genioplasty	286
<i>Seong Yik Han and Kar Su Tan</i>	

V Facial Skin and Hair Rejuvenation

23. Management Strategies for the Aging Asian Face: Philosophy and Evolution	303
<i>Samuel M. Lam</i>	
24. Facial Fat Grafting	311
<i>Kyoung-Jin (Safi) Kang</i>	
25. Endoscopic Forehead and Brow Lift	324
<i>Tee Sin Lee and Stephen S. Park</i>	
26. Facial Rejuvenation Using Energy Devices	339
<i>Un-Cheol Yeo</i>	
27. Hair Transplantation in East Asians	349
<i>Sungjoo (Tommy) Hwang</i>	
28. Aesthetic Laser Hair Removal for the Asian Face	364
<i>Wooseok Koh</i>	

VI Minimally Invasive Facial Plastic Surgery

29. Aesthetic Facial Use of Botulinum Toxin in East Asians	377
<i>Kyle Seo</i>	
30. Facial Contouring Using Fillers	392
<i>Jongseo Kim</i>	
31. Management of Facial Filler Injection Complications	405
<i>Hyoung Jin Moon and Jong Sook Yi</i>	
Index	415

Foreword

There is no population in the world that has a higher growth of interest in aesthetic surgery than the East Asian population. It is reported that one in five women in the Republic of Korea have undergone aesthetic facial surgery. This dramatic increase is multifactorial and is in part driven by local popular culture and media. This trend has been notable over recent years, with the advent of Korean popular culture and the associated desire to look like the famed K-pop stars. The look is quite characteristic of Korean aesthetics, with many patients showing their surgeon photos of the same Asian media personalities. This trend has become so fashionable that it is no longer a stigma to undergo cosmetic surgery in the Republic of Korea and China. In fact, it might now be considered a status symbol and reflect upward mobility in the eyes of many. This age of the “selfie” and Facebook has made “looking good” even more important to this growing population. These social changes have dramatically increased the demand for Asian cosmetic surgery, stimulating a significant increase in the number of surgeons performing the surgery.

The aesthetics of the Asian face are constantly changing, and surgical techniques must change to accommodate such changes. Today, there is often the desire for a rounder forehead, higher nasal dorsum, narrower nasal tip, and a less round, more angular mandible and chin. Many of these characteristics may indicate a desire for a more “Western” look. However, there are different degrees of change and this must be recognized by the surgeon. Hong Ryul Jin understands the importance of this variance from patient to patient. This requires the surgeon performing enough surgeries to have acquired a number of techniques in their armamentarium. In this book, Dr. Jin has compiled an outstanding collection of chapters written by an expert group of surgeons. The book covers the most updated techniques on contouring the Asian face covering rhinoplasty, Asian eyelid surgery, facial contouring, and aging-face surgery. The book also covers the rapidly changing field of nonsurgical treatments, such as botulinum toxin, fillers, and lasers.

In the section on rhinoplasty, the authors discuss the use of implants and autologous materials for Asian augmentation rhinoplasty. The difference in these techniques is very significant and is reflected in these writings. Use of implants continues to be the most commonly used method to augment the nose. Nuances in the techniques are discussed in great detail and are covered by several authors. Combined techniques using alloplastic materials for dorsal augmentation and ear cartilage for the nasal tip have become popular to avoid some of the potential complications of extending

alloplastic implants into the nasal tip. The use of costal cartilage for augmentation is discussed in detail, describing techniques used to stabilize the nasal tip and augment the nasal dorsum. Also covered are the nuances of performing dorsal augmentation with costal cartilage and how to minimize the likelihood of warping. Popular techniques, such as diced cartilage for dorsal augmentation and tip grafting, are covered as well.

The many techniques available for managing the Asian eyelid are covered, including incisional and nonincisional suture techniques, as well as conventional incisional techniques. Precision measurement and marking, anesthetic injections, incision placement, management of the fixation method, postoperative care, and managing complications are all discussed. Also covered is the management of the epicanthal fold.

In the section on facial contouring, the chapters cover management of the Asian malar region, mandible, perialar augmentation, chin augmentation, masseter muscle contouring, forehead contouring, and complications. Also covered are the nuances of facial contouring that provide the surgeon with many options for creating a more aesthetically pleasing Asian face.

The section on nonsurgical management covers the use of botulinum toxin for facial muscle contouring, brow contouring, and rhytid management. This section also covers fat injections and contouring using autologous fat. Laser resurfacing is discussed as well.

Dr. Jin has been a strong academic figure in Korea for many years and has become well known around the world. He has frequently lectured in the United States and all over Asia. He is now considered an international expert on Asian rhinoplasty and Asian facial cosmetic surgery. His international influence is reflected in the diversity of the authors contributing to his book, and he has done a masterful job editing this work. Readers will find this book comprehensive in its content and detail of surgical descriptions and use of quality operative photography and illustrations. This book is an essential reference for the surgeon interested in providing the best outcomes in Asian aesthetic facial surgery.

*Dean M. Toriumi, MD
Professor*

*Division of Facial Plastic and Reconstructive Surgery
Department of Otolaryngology–Head and Neck Surgery
University of Illinois
Chicago, Illinois*

Foreword

Hong Ryul Jin has led the way in creating a unique book on aesthetic facial surgery for the East Asian patient. There are many unique variances with patients from this region of the world, and they have put together a collection of chapters that cover all aspects of facial aesthetic surgery as it pertains to the Asian face. The book highlights the many nuances in facial aesthetic surgery in this group, and any surgeon who has the occasional Asian patient will be well served to have this edition in his or her reference library.

A solid portion of this book is dedicated to the techniques of Asian rhinoplasty. It is not limited to strictly alloplastic dorsal implants, but covers many subtleties that are often required with Asian patients. The third section is dedicated to the periorbital rejuvenation of the Asian patient, including ptosis and the double eyelid procedure. There are intricacies to this procedure that distinguish

a good from a great result, and this book captures them well. The remaining sections touch on other procedures performed in facial aesthetic surgery, including facial bone contouring, minimally invasive and office based procedures, and hair rejuvenation.

Herein is a collection of many authors with vast experience in facial aesthetic surgery in the Asian population. It is comprehensive, eloquently written, and will serve as an invaluable resource for years to come. Dr. Jin is to be congratulated for a terrific book.

*Stephen S. Park, MD
Professor and Vice-Chairman
Department of Otolaryngology
Director, Division of Facial Plastic Surgery
University of Virginia
Charlottesville, Virginia*

Preface

Aesthetic facial plastic surgery has come under the spotlight in East Asian countries in the past two decades. Korea came under the spotlight in this field recently and intrigued many from all corners of the world to come, learn, and update their techniques. It is my hope that this knowledge can be shared far and wide with the English speaking crowd, who has been finding it difficult to access information that has been passed on in various Asian languages.

The chapters in this book describe most of what you need to know about aesthetic plastic surgery on the face. The chapters were written by my renowned colleagues in their respective specialties, detailing special techniques and potential pitfalls. These details do not come from overnight

enlightenment, but rather reflect experience and learning accumulated over decades of surgeries. The content in this book is highly scientific and evidence based, which means it has proven to be safe and efficient. This book not only focuses on introducing techniques that are new, but teaches the basic concepts of how-to-do-it in a structured manner to ensure that readers are able to clearly conceptualize the techniques and theories behind every maneuver.

I sincerely hope and expect that this book will guide the new surgeons venturing into aesthetic plastic surgery of the Asian face, as well as provide valuable information to the others.

Hong Ryul Jin

Acknowledgments

It was not an easy journey for the publication of this book, and I would like to express my most heartfelt gratitude to all my colleagues who have contributed to it.

I thank Thieme Publishers and its people for allowing me to publish this. Due to their great work, this book changed from an ugly duckling into a swan. Doctors who contributed their valuable expertise to this book need special acknowledgment

for their patience in allowing and enduring my continuous requests. I also wish to thank my fellows, Woo-Seong Na, Hahn Jin Jung, and Somasundran Mutusamy, for helping me to edit the manuscript. Our excellent illustrator, Mrs. Hyun-Hang Lee, who devoted her time and talents to this book, did a wonderful job in expressing the details in every drawing per the requests of each contributor. I give my sincere thanks to her.

Contributors

In-chang Cho, MD

Bio Plastic Surgery Clinic
Seoul, Republic of Korea

Woong Chul Choi, MD

Director of Myoung Oculoplastic Surgery
Clinical Attending Professor
Department of Ophthalmology
St. Mary's Hospital
Catholic University of Korea
Seoul, Republic of Korea

Hokyung Choung, MD, PhD

Assistant Professor
Department of Ophthalmology
Boramae Medical Center
Seoul National University College of Medicine
Seoul, Republic of Korea

Seungil Chung, MD, PhD

Division of Facial Bone Surgery
Department of Plastic Surgery
ID Hospital
Seoul, Republic of Korea

Victor Chung, MD

Director
La Jolla Facial Plastic Surgery
San Diego, California

Eunsang Dhong, MD, PhD

Professor
Department of Plastic and Reconstructive Surgery
Guro Hospital, Korea University Medical Center
Seoul, Republic of Korea

Hun-Jong Dhong, MD, PhD

Professor
Department of Otorhinolaryngology–Head and
Neck Surgery
Samsung Medical Center
Seoul, Republic of Korea

Seong Yik Han, MD, DDS, PhD

Director
Facial Plastic Surgery
Simmian Maxillofacial Plastic Surgery Unit
Seoul, Republic of Korea

Aram Harijan, MD

Academic Consultant
Well Plastic Surgery Clinic
Seoul, Republic of Korea

Jin Joo Hong, MD, PhD

Head
JJ Medical Group
Seoul, Republic of Korea

Sungjoo (Tommy) Hwang, MD, PhD

Director
Dr. Hwang's Hair Transplantation Clinic
Seoul, Republic of Korea

Jae Woo Jang, MD, PhD

Vice President
Ophthalmic, Plastic, and Reconstructive Surgery
Kim's Eye Hospital
Konyang University
Seoul, Republic of Korea

Hong Ryul Jin, MD, PhD

Professor and Chair
Department of Otorhinolaryngology–Head and
Neck Surgery
Boramae Medical Center
Seoul National University College of Medicine
Seoul, Republic of Korea

Kyoung-Jin (Safi) Kang, MD, PhD

Director
Educational Center of KCCS
Seoul Cosmetic Surgery Clinic
Busan, Republic of Korea

In-Sang Kim, MD

Chief Executive
Department of Facial Plastic Surgery
Doctor Be Aesthetic Clinic
Seoul, Republic of Korea

Jongseo Kim, MS

Director
Department of Plastic Surgery
Kim-Jongseo Plastic Surgery Clinic
Seoul, Republic of Korea

Namju Kim, MD, PhD

Associate Professor
Department of Ophthalmology
Seoul National University Bundang Hospital
Seongnam-Si, Kyeonggi-Do, Republic of Korea

Yoon-Duck Kim, MD, PhD

Director
Oculoplastic and Orbital Surgery Division
Professor
Department of Ophthalmology
Samsung Medical Center
Sung Kyun Kwan University School of Medicine
Seoul, Republic of Korea

Wooseok Koh, MD

Director
Department of Dermatology
JMO Hair Removal Dermatology Clinic
Seoul, Republic of Korea

Samuel M. Lam, MD, FACS

Director
Willow Bend Wellness Center
Plano, Texas

Jihyuck Lee, MD

Chief
Division of Facial Bone Surgery
Department of Plastic Surgery
ID Hospital
Seoul, Republic of Korea

**Tee Sin Lee, MBBS (S'pore), MRCS (Edin), MMed (ORL),
FAMS (ORL)**

Deputy Director and Consultant
Facial Plastic and Reconstructive Surgery Service
Department of Otorhinolaryngology–Head and
Neck Surgery
Changi General Hospital
Clinical Lecturer
Yong Loo Lin School of Medicine
National University of Singapore
Singapore

Hyoung Jin Moon, MD

President
Dr. Moon Aesthetic Surgery Clinic
Seoul, Republic of Korea

Juwan Park, MD, PhD

Associate Professor
Department of Ophthalmology
Yeouido St. Mary's Hospital
The Catholic University of Korea
Seoul, Republic of Korea

Sanghoon Park, MD

Chairman
Department of Plastic Surgery
ID Hospital
Seoul, Republic of Korea

Stephen S. Park, MD

Professor and Vice-Chair
Department of Otolaryngology
University of Virginia
Charlottesville, Virginia

Chae-Seo Rhee, MD, PhD

Professor
Department of Otorhinolaryngology–Head and
Neck Surgery
Seoul National University College of Medicine
Seoul National University Bundang Hospital
Seongnam-Si, Kyeonggi-Do, Republic of Korea

Kyle Seo, MD, PhD

Clinical Associate Professor
Department of Dermatology
Seoul National University College of Medicine
Seoul, Republic of Korea

Yongho Shin, MD, PhD

Director of Bio Plastic Surgery Clinic
Clinical Attending Professor
Department of Plastic Surgery
Korea University
Seoul, Republic of Korea

**Kar Su Tan, MBBS (S'pore), MRCS (Edin), MMed (ORL),
FAMS (ORL)**

Medical Director
The Rhinoplasty Clinic ENT Facial Plastics
Singapore

Keng Lu Tan, MD, MRCS, MS (ORLHNS)

Ear, Nose, and Throat, Head and Neck Surgeon
Facial Plastic and Reconstructive Surgeon
Department of Otorhinolaryngology
University of Malaya
Kuala Lumpur, Malaysia

Dean M. Toriumi, MD

Professor
Department of Otolaryngology–Head and Neck Surgery
University of Illinois at Chicago
Chicago, Illinois

Tae-Bin Won, MD, PhD

Associate Professor
Department of Otorhinolaryngology–Head and
Neck Surgery
Seoul National University Hospital
Seoul, Republic of Korea

Kyung In Woo, MD, PhD

Professor
Department of Ophthalmology
Sungkyunkwan University School of Medicine
Samsung Medical Center
Seoul, Republic of Korea

Hae Won Yang, MD

Chief
Division of Plastic and Reconstructive Surgery
JJ Medical Group
Seoul, Republic of Korea

Eduardo C. Yap, MD

Facial Plastic Surgeon
Belo Medical Group
Manila, Philippines

Un-Cheol Yeo, MD, PhD

Chairman
S and U Dermatologic Clinic
Clinical Professor
Department of Dermatology
Samsung Medical Center
Sungkyunkwan University
Seoul, Republic of Korea

Jong Sook Yi, MD

Assistant Professor
Department of Otorhinolaryngology–Head and
Neck Surgery
Bundang CHA Medical Center
Seongnam-si, Republic of Korea

Ian Loh Chi Yuan, MBBS, MRCS, MMED, FAMS

Director
Facial Plastic and Reconstructive Service
Department of Otorhinolaryngology–Head and
Neck Surgery
Changi General Hospital
Singapore

I

Introduction

1 The Changing Face of Aesthetic Facial Plastic Surgery among East Asians

Keng Lu Tan and Hong Ryul Jin

Pearls

- Asians, particularly those in East Asia, have seen rapid development in the field of aesthetic facial plastic surgery, especially in the refinement of Asian-specific techniques, over the past two decades.
- The typical Asian belief in not altering the physical appearance of one's face, attributed to respect for the elderly and one's ancestors, has evolved with globalization, resulting in a more neutralized Asian culture, which is a cross between East and West. More Asians realize that to be at the leading edge of society, an attractive appearance plays an important role in determining success. There has been a shift in social acceptance of aesthetic surgery, and we see more demand for it than ever before.
- East Asian features of the face are discussed in detail in the following chapters, with particular attention to single-eyelid, small palpebral aperture, flat nasal bridge and tip, malar prominence, broad mandible, retruded premaxilla, and many other Asian-specific aesthetic surgeries.
- Common aesthetic surgeries of East Asians also include double-eyelid surgery, epicanthoplasty, rhinoplasty, facial bone contouring surgery, fat injection, and many other techniques discussed in this book.
- Newer techniques, including the combination of nonsurgical techniques in facial rejuvenation such as fillers and botulinum toxin, and laser hair removal and hair transplantation specific to East Asian characteristics, are discussed in detail. The pros and cons of nonsurgical techniques such as laser and ultrasound for facial rejuvenation are also thoroughly described to keep readers updated with the latest technologies and the options available to achieve desired outcomes.
- Most important, this book not only contains surgical techniques and pearls from surgeons who are experts in their respective fields of aesthetic facial plastic surgery, but also incorporates comments on pitfalls and complications, and how to overcome them, in detail.

■ Introduction

The recent surge in the number of people seeking aesthetic facial surgery is a testament to the emphasis placed on one's looks as a way to gain considerable leverage in society. The new movement also involves the concept of eternal youthfulness; being young is considered attractive, and looking younger can improve the competitiveness of a worker.^{1,2} This trend, which started in Western countries around the end of the twentieth century, is fast becoming worldwide.

As of this writing Asia is the most actively growing economy in the world. With more than half of the world's population residing on this continent, the impact of any movement in Asia will be influential.³ With the population getting more affluent and with the increasing affordability of a higher standard of living, the past 10 years have seen many Asians seeking aesthetic procedures to enhance their facial features or to attenuate the aging process. Although the broad term *Asians* is generally used to denote people who originate from Asia, in truth various ethnicities and races with different facial morphologies reside in Asia. West and South Asia stretches to Turkey and India, where Caucasoid people (i.e., Turks and Indians) are found. In

East Asia, where China, Korea, and Japan are located, people possess East Asian features. Although East Asians are grouped in the Mongoloid strain along with the Southeast Asians (Indonesians, Thai, Polynesians, etc.), the facial features among the Mongoloids are still quite distinct from each other.³ **Fig. 1.1** depicts the average of different beautiful Asian faces as described by Rhee.⁴ Indians, Chinese, and Japanese are all considered Asians; however, their facial features can be quite different.

Due to Asia's long-standing trade routes connecting East and West, modern Asian cities are often comprised of multiple ethnic groups, reflecting the modern trends of interracial marriages and globalization. There is a rapidly transforming effect of globalization on facial features as well, although at this time we still see rather characteristic Oriental features among East Asians.

Aesthetic facial surgery in East Asia has expanded and developed at an exponential rate in the past two decades. Such rapid progress has enabled us to develop surgical techniques suitable for Asians and to accumulate a considerable amount of experience (**Fig. 1.2**). The new skill sets and experience have been translated into technical advancement and better surgical outcomes. Those experiences and advances in aesthetic facial surgery more suited



Fig. 1.1 Attractive composite faces of different races. Attractive famous female entertainers' faces were morphed by sequentially mixing photographs at the mean values to generate the composite faces. (Used with permission from Rhee et al. Attractive composite faces of different races. *Aesthetic Plast Surg* 2010;34:800–801.)



Fig. 1.2 Typical surgeries and nonsurgical procedures to improve facial aesthetic appearance in East Asians. These various techniques will be addressed throughout this textbook, with specific modifications for Asians.

for Asians are becoming more and more popular, especially among the more affluent Asians living in the Western countries. Authors of this book believe there is no better time than now to have our knowledge and experience gathered and shared to stimulate more development in this field.

Many years have passed since the introduction of specific techniques for Asian aesthetic surgery. Much has evolved over the years, and the current focus seems to be on refining the techniques to address the stigma faced by Asian patients. Although we still find a handful of patients coming to the surgeon wanting to look like a particular public figure, many are steering away from that trend. Patients these days often request a natural-looking face and wish to enhance their current appearance while retaining their facial characteristics, and they especially want to prevent their plastic surgeries from being noticed by others. While embracing their existing facial characteristics, patients prefer not to look the same as others who desire the ideal composition of a beautiful face, albeit all similar looking. This has resulted in surgeons reinventing themselves and moving into the next level of aesthetic facial surgery, combining less invasive procedures with surgery whenever possible. The art of combining nonsurgical and surgical techniques to create a beautiful face will no longer be based on a gut feeling but will be objectively described in this book.

■ The Change in Cultural Beliefs and the Modernization of Asian Thinking

The Asian desire for a pleasant face is heavily influenced by facial physiognomy in the past. The combinations of pleasant-looking features described in the ancient books were illustrated with pictures of faces that dictated the future of a person, down to the position of moles on the face and body.⁵ There was a realization of the need for an aesthetically pleasing face, but few other than Shusrata ventured into the aesthetic surgical field. Individuals with pleasant-looking faces were more likely to be judged to have a good life and a good job, and those with unpleasant-looking features were often associated with socially less respectable jobs or even criminality. The latter types of faces were deemed inauspicious and still very much influence how a person is judged in modern society. Despite this, there was little development in this field. Few wanted to change their looks surgically, partly due to the unrefined state of surgical skills at that time and the strong influence of Confucianism all over Asia, which emphasized the sanctity of the physical body as a sacred gift from our parents. Altering one's physical appearance was considered disrespectful to one's ancestors.¹

As globalization and Westernization exerted more influence in Asian society via Western media, the definition of beauty became associated with white Caucasian fea-

tures, such as double eyelids and tall, well-defined noses. Fair skin is seen as the marker of class. One ancient saying in Japanese, Korean, and Chinese societies goes, "A white complexion overrides three appearance flaws,"⁶ emphasizing the long-standing importance of light-colored skin in multiple countries across Asia. This was reinforced during the Western colonization period, when the Europeans were present in Asia and enjoyed high social status. In "The History of White People," Neil Painter even argued that Caucasians produce "the most beautiful race of men" and that Chinese eyes are an "offence to beauty."⁷ The ideal beauty of Caucasians was once the well-accepted definition of beauty in Asia.

Recently, Asian countries have become stronger and more influential economically. Scholars have started to debate about "Eurocentric" beauty and the phenomenon in Asia where it has become the norm to alter one's facial appearance using plastic surgery to be more Westernized. With growing confidence within Asian society, however, Asians have started to embrace their ethnic features. The fusion of certain desirable Western features with Asian features is now seen as the ideal form of beauty in Asia. The key concept now is to blend attractive features rather than having a certain defined template, a concept that has been heavily criticized and is rapidly falling out of favor. The good-looking features are, of course, those that suit a person's facial structure, personality, and the person as a whole. Enhancement rather than alteration of the facial features has become the new trend.

Statistics show that up to 58% of women in Korea have plastic surgery by the age of 50.^{1,8} The percentage is growing in their male counterparts too. The desire to obtain aesthetic plastic surgery is often driven by the psychosocial aspiration of the patient. Rapid development in this field is largely driven by the need to appear more attractive in order to be better accepted in a society that places a lot of emphasis on beauty and pleasant appearance. Looking more beautiful becomes an investment to achieve higher socioeconomic status and to ensure one will find a wealthy romantic partner. Thus a new culture or trend has emerged, unstoppable by past cultural beliefs and taboos, and strongly driven by novel concept of beauty, wealth, and a good life. As this concept has grown, the subjects seeking cosmetic enhancement have become younger and younger. As Korean dramas and movies have become more popular throughout Asia, so has the influence of the Korean definition of beauty spread all across Asia. This phenomenon of "Han Ryu" (the Korean trend) was popular among viewers of all ages. With attractive actors and actresses portrayed as heroes and heroines, many fantasized becoming like one of them, which could be achieved by altering their looks.

This trend became a strong driving force in the development of aesthetic surgery in Asia, enabling surgeons to grow and achieve a new level of understanding of aesthetic surgeries. However, it is up to the conscience of individual practitioners to guard the sanctity of this field, preventing

the double-edged sword of harm to our patients and to the practice of aesthetic surgery, by prescribing only appropriate and scientifically sound procedures to patients and providing the best surgical practices tested by time and experience.

■ Anatomic Differences and Their Implications

Most East Asians share the phenotypic features represented by the Mongoloid profile. It is currently the most widely distributed physical type, constituting over a third of the human species. Therefore, it is not surprising to find that many living throughout Asia share the same facial features. Mongoloid features are typically represented by epicanthal folds and neoteny. While some of the features, such as the single eyelid and maxillary retrusion, are not common among Westerners, they are widely encountered in Asians, with double-eyelid surgery being the most popular plastic surgery sought (Fig. 1.3). High cheekbones, a broad mandibular angle, and a low nasal profile are features in Asians that are not highly favored, and are often associated with aggression or manliness. Generally, a well-projected nose is preferred.

A low nasal bridge is not limited to Mongoloids. The Malay people found in most of Southeast Asia across the Philippines, Malaysia, Thailand, and Indonesia often request changes to address a low nasal bridge and wide flaring ala (Fig. 1.4).

Because the anatomy of the eyelids, nose, and facial bones in Asians differs significantly from that of Caucasians, a unique management strategy is required to successfully improve the aesthetic outcome. The management strategy should be aimed at handling anatomic issues specific to the Asian face such as the following:

1. The pretarsal skin of the upper eyelid is not attached to the levator palpebrae muscle, leading to a poorly defined superior palpebral fold. The construction of a double eyelid that suits the morphology of an Asian face is different from practice involving Caucasians.
2. Excessive fat is distributed between the orbicularis oculi muscle and the levator muscle with relatively thick palpebral skin and orbicularis oculi muscles.
3. Orbits are smaller with a more protruding orbital margin compared with Westerners. Therefore, recreating the features of Caucasian eyelids has proven unsuitable. Aesthetic eye surgery should be refined and subtle rather than dramatic, or it can give rise to a thick, deep upper eyelid, which is not suitable for smaller orbits.
4. The nasal sclera triangle is rounded due to the prominent medial epicanthal fold. A variety of techniques (and their pros and cons) to eliminate the obtunded angle will be described in detail in the chapter on epicanthoplasty.
5. The narrow and relatively small palpebral aperture results in small eyes. This has resulted in many techniques invented and modified over the past decade to increase the palpebral aperture by lateral canthoplasty. Proper consideration of the anatomy involved in lateral and medial epicanthoplasty should be given before the surgery is done to prevent later complications such as lower eyelid ectropion.
6. A flat nasal bridge and a poorly defined cartilaginous structure of the nose results in poor projection of the nose.
7. There is a smaller nasal pyramid with shorter nasal bone length in Asians compared with other ethnicities. A study done by Naser and Boroujeni concluded that the nasal bone length studied in the skulls of Koreans was smaller than in American Indians, Anatolians, Iranians, and African Americans.⁹ The soft and small nasal septum encountered sometimes poses difficulty to the surgeon needing a cartilage graft from the nasal septum. Due to this, the use of homologous and autologous rib cartilage grafts has become popular when synthetic implants are not suitable or not preferred by patients. Patients should be adequately counseled, as the likelihood of needing a rib graft is higher in Asian patients.
8. The nasal skin is thick with abundant sebaceous glands. This makes maneuvering the nasal tip substantially more technically demanding.
9. Asians possess different skin properties compared with other racial groups. Asians are known to have a thinner stratum corneum, the smallest in terms of pore size and pore numbers, and the highest water and lipid content in the stratum corneum compared with other peoples. Their skin is also known to have the weakest chemical barrier. All these characteristics signify that topical drug penetration is the best in Asian skin and that the formation of wrinkles is less in Asians. Such anatomical differences in the epidermal layer of the Asian skin make management of scars and skin lesions different in the Asian population.
10. Asians have a high malar prominence due to a prominent zygomatic body or arch.
11. The broad mandibular angle is associated with masseter hypertrophy.
12. Asians' hair is thick and coarse, is round in shape, and grows faster. Asians also have a higher prevalence of curly hair, but thick and straight hair is predominant among East Asians. These anatomic differences in Asian hair compared with Caucasian hair require hair transplant equipment and procedures that are different from those that are conventionally used.

To successfully address the above issues, one should understand the unique anatomic presentation of the Asian face to properly modify and make refined adjustments to the generic techniques presented in earlier textbooks.



Fig. 1.3 Typical East Asian woman who had rhinoplasty with blepharoplasty. **(a–c)** Typical East Asian face, illustrating the wide mandibular angle, high cheekbones, poorly defined upper eyelid crease, broad and low nasal dorsum, and poorly defined nasal tip. **(d–f)** The same individual after rhinoplasty and blepharoplasty. Her appearance greatly enhanced, the individual seems more approachable and attractive, with softening of the unfavorable wide angle of the mandible.