

Paul J O’Keeffe

Closed Rhinoplasty

The Next Generation

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To my life's partner, Marilyn, our children, Sally, James, Victoria and Michael and to my colleagues. Special thanks to my office team, Kelly, Dani, Taki and Kerry, for immense support and to my patients who did me the honour of being their surgeon.

Paul J O'Keeffe

Foreword

Rhinoplasty is a commonly performed procedure, but it takes a special level of comprehension to achieve accurate patient assessment and to apply skilled techniques for surgical refinement of the nose. Only in this manner can the surgeon be assured of consistently good long-term results with happy patient outcomes.

It is of interest how, over the decades, the techniques of rhinoplasty have evolved from conservative closed techniques, to ‘bucket handle’ delivery of tip cartilages, to full open approach, to endoscopic assisted and further instrument refinement including the use of piezoelectric techniques, and the more recently acclaimed ‘pushback’ procedure. One only has to visit a plastic surgery trade show to see the vast array of rhinoplasty instruments available to understand the complexity of procedures that have been propagated to surgically refine the nose—a real dilemma for the trainee or recently graduated rhinoplasty surgeon.

Hence it is refreshing to read the *Closed Rhinoplasty: The Next Generation*. I have known plastic surgeon Paul O’Keeffe for over forty years and have listened with interest to his many presentations at plastic surgery scientific meetings including those of the Australasian Society of Aesthetic Plastic Surgeons, the Australian Society of Plastic Surgeons and the Advanced Aesthetic Plastic Surgery Workshop when focused on rhinoplasty. All of his talks have been informative, educational and based on his original concepts, refined from many years of experience. In reading this book one cannot be but impressed by the refreshing nature of the presentation, the simple, clear explanation backed up by suitable diagrammatic and photographic examples.

This book should find its way into libraries, be they personal or public, to aid all those surgeons interested in improving rhinoplasty. It will be equally of interest to novice and experienced surgeons.

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1.1 Early Rhinoplasty Experience

My first experience with rhinoplasty was assisting Mr. Frank Innes, Consultant Plastic Surgeon to East Anglia Plastic Surgery Service in Norwich, England in 1970. Much cartilage and bone were removed through the nostrils and I had no clear idea from whence it came.

Over the next three years in Norwich I did 55 closed rhinoplasties on my own and results were ordinary. Back then it was commonly said “a surgeon needs to do one hundred closed rhinoplasties before he/she can do the operation well”. Now I meet young plastic surgeons who have just completed their training and they have done only one or two or perhaps no rhinoplasties, and they were by the open method.

1.2 Closed Rhinoplasty Rather than the Open Operation

This book is dedicated to those plastic surgeons who would like to venture into or revisit the realm of closed rhinoplasty. I hope I can enlighten and encourage them to do this very rewarding operation.

1.3 Australian Conditions Were Very Favourable

1.3.1 Australian Plastic Surgery

Commencing plastic surgery practice in Sydney in 1973 was fortunate timing because Australia had a universal health system called Medibank and all operations were covered, even cosmetic procedures. Facelifts, breast augmentations and rhinoplasties were financed from the public purse. Cosmetic surgery was now in the main stream of Australian surgical procedures and standards improved significantly. Innovation was not hampered by the legal profession then and new ideas were promulgated via the newly constituted Australasian Society of Aesthetic Plastic Surgery. ASAPS has continued as an association devoted to improving surgical standards and renowned surgeons from around the world have been guest professors at the Annual Scientific Conferences.

1.4 Jack Gunter

Jack Gunter was our guest in 1989. Since Jack's visit my principal focus has been on rhinoplasty. True to the form of Sydney plastic surgeons, very few journal articles have been penned by me. Melbourne surgeons are more prolific,



Fig. 1.1 Paul O'Keeffe and Jack Gunter, ASAPS 1989

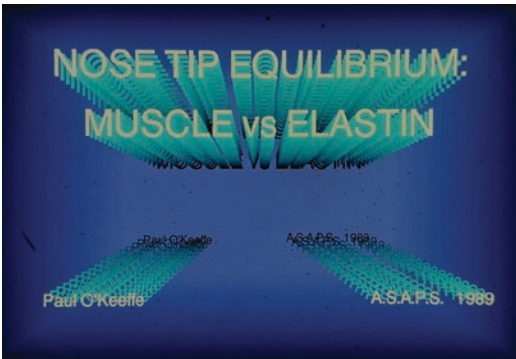


Fig. 1.2 Title slide for the winning presentation at ASAPS 1989

perhaps because the Royal Australasian College of Surgeons is in their midst. However, Australians as a group cannot compete with their American colleagues for length of curriculum vitae. Despite this lack of written articles,

Australian plastic surgeons do present often at their own local association meetings.

1.4.1 Early Frustrations

Up until the late 1980s I could not accurately predict the outcome of my rhinoplasties. The finished nose looked good on the operating table but by three months post-operation two out of three had changed. Tip projection was lost, and the poly beak deformity was present in these disappointing cases. What was causing this? I needed to find out.

Cadaver dissections were carried out at the Sydney Morgue in 1988 and this led to my current understanding of the cause of tip instability. Changing the way that closed rhinoplasty is planned and performed has produced exceptionally predictable results. Patients can be promised accurate changes that satisfy their desires.

1.5 Template Rhinoplasty

The new operation is so called because a life-size profile template is made pre-operatively to the patient's specification, used intra-operatively to accurately control the nasal changes, and post-operatively as a means for monitoring the nasal shape.

What follows is a description of the various concepts and parameters that need to be considered before one can accurately design a closed rhinoplasty. A number of these concepts are new and never published in print media. However, much of it has been aired at ASAPS meetings over 30 years. One Melbourne colleague once told me he could present my paper since he'd heard it so many times before!



2.1 My Unsatisfactory Results 1970–1988

My early closed rhinoplasties had unstable tips. The shape remained satisfactory for three months and then, when the stiffness from the healing reaction was settling, many tips changed, moving backwards and drooping down.

Supra-tip swelling, known as “Polly Beak” deformity, appeared and patients had to be consoled with assurances that all will be well after twelve months when the swelling finally disappears. Sadly, that was sometimes a forlorn hope as the shape never became something to be proud of. It seemed to me that the cause of this problem lay within the muscles of the columella base because patients having greater resections from the caudal margin of their septal cartilage suffered the most. A paper along these lines was presented at the 1988 meeting of Australasian Society of Aesthetic Plastic Surgery and met with opposition from my colleagues. That was the stimulus to prove them wrong.

2.2 Young Cadaver Dissections

Permission was granted to me and my nurse assistant to dissect the columellar base and adja-

cent area in cadavers who had fleshy tissue at the columella base, like patients who presented for rhinoplasty. They were preferably young cadavers so suitable specimens were not always available.

2.3 Old Cadavers Considered to be Unsuitable to Study

Elderly cadavers whose columella footplates were resting on their orbicularis muscle were regarded as unsuitable for this study. These changes are commonly seen when comparing a mother and daughter or a father and son.

The tissue at the columella base comprised a pair of pyramid-shaped muscles that arose from a fibrous plaque adherent to the anterior surface of the orbicularis oris muscle. It did not resemble the diagrams in anatomy textbooks that showed slips of orbicularis muscle peeling off from lateral to medial and inserting into the columella cartilages. The pyramid-shaped muscles were separate structures that obviously atrophy in old age. They inserted into the posterior-medial surface of the ipsilateral columella footplate and this could be demonstrated by detaching the footplate from the columella and pulling it anteriorly. These muscles are often called depressor septi.

Fig. 2.1 The daughter's profile is on the left and mother on the right

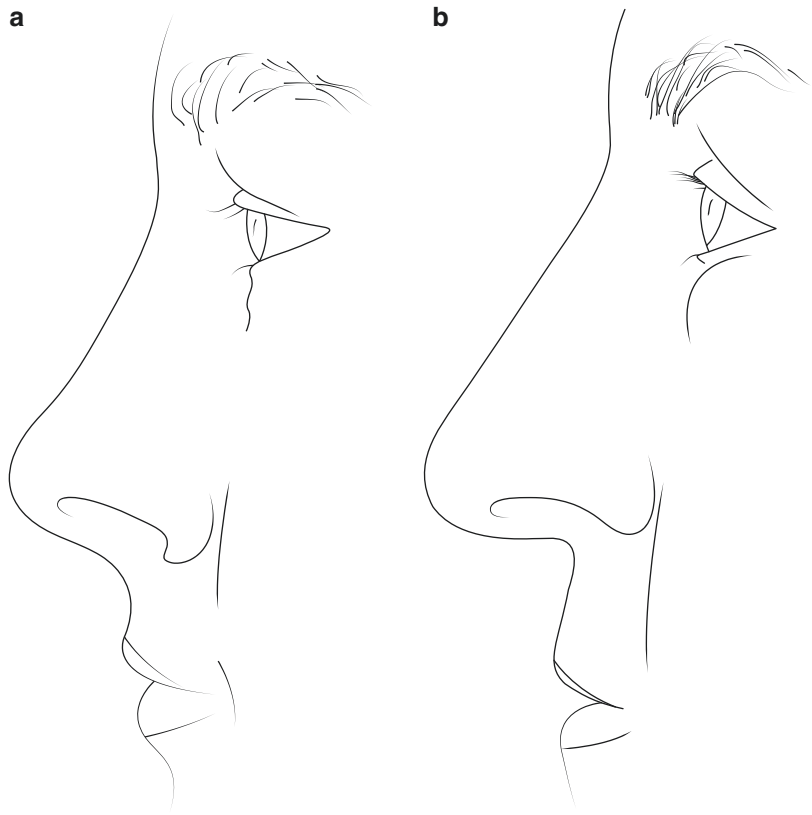


Fig. 2.2 Muscle at columella base



Fig. 2.3 Columella footplate separated and pulled up to stretch the muscle

2.4 Two Separate Sets of Muscles Have Been Called Depressor Septi

Anatomical descriptions of depressor septi muscles can be confusing to readers of texts because the name is also used for a muscle taking origin on the anterior surface of the maxilla, deep to the

full thickness of the superior portion of the orbicularis oris muscle. It is interesting that G.S. Lightoller, researching facial musculature of the Australian aborigine with Prof A.N. Burktt at the University of Sydney, refused to use the term depressor septi in his article in 1926–1927 *Journal of Anatomy* because two separate muscles had been given that name.