Article published online: 2024-09-03

From Quackery to Super-Specialization: A Brief History of Aesthetic Surgery

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Indian J Plast Surg 2024;57:486–491.

Abstract

From time immemorial, human beings have always tried to decorate themselves to look more beautiful and attractive to an onlooker, in turn improving their own self-esteem. Thus, *Ayurveda* in India and *Ebers Papyrus* in Egypt, written thousands of years ago, mention a variety of cosmetics being used for the same. However, operative interventions were mainly reconstructive and any improved aesthetics was a by-product only (e.g., restoration of amputated nose). The surgery for purely cosmetic reasons started less than 150 years ago after the availability of anesthesia and antisepsis. Initially, the medical profession and the common man were skeptical of these interventions and even ridiculed the patient and the clinician. The pioneers were labeled as quacks and working against the law, and some of them had to even commit suicide, while the patients were labeled as "psychiatric." The past 50 years have seen aesthetic procedures, both surgical and nonsurgical, being performed by highly qualified superspecialists. This article attempts to trace this change.

Keywords
- history
- aesthetic surgery
- quackery
- cosmetic surgery

'Those who cannot remember the past are condemned to repeat it.'

–Santayana, Philosopher, 1863–1952

Earlier textbooks on plastic and/or aesthetic surgery did not include a chapter on the history of plastic surgery, in general, and aesthetic surgery, in particular. Multi-author and multi-volume books edited by Converse (1964[1] and 1977[2] editions) and the subsequent updated editions brought out by McCarthy, Mathes, and Neligan have always included a chapter on the history of plastic surgery. The chapters were titled "Introduction" and "Introduction to Plastic Surgery," respectively, in the 1964 and 1977 editions but did not mention anything about aesthetic surgery. McCarthy[3] also maintained the same heading as in the Converse 1977 edition but included a few lines on the history of aesthetic surgery for the first time. Mathes in 2006 changed the caption to "Historical perspectives."[4] It was Neligan's 2012 edition that for the first time named the chapter as "History of Reconstructive and Aesthetic Surgery."[5]

Another six-volume textbook on plastic surgery was published from India with a chapter on the history of plastic surgery and included aesthetic surgery.[6] A single-volume titled "Textbook of Plastic Surgery in the Tropics," edited by Dr. RN Sinha in 1976, had included a detailed history of plastic surgery as the first chapter.[7] A two-volume book edited by Guyuron et al had a very small chapter titled "History of Plastic Surgery."[8] Almost all other textbooks like the ones by "Grabb and Smith,"[9] "Georgiade and Giorgiade,"[10] "Achauer,"[11] "Rees,"[12] "Regnault and Daniel,"[13] "Rees and LaTrenta,"[14] "Nahai,"[15] etc., have not included

article published online
September 3, 2024

DOI https://doi.org/10.1055/s-0044-1789271.
ISSN 0970-0358.

Thieme Medical and Scientific Publishers Pvt. Ltd., A-12, 2nd Floor, Sector 2, Noida-201301 UP, India

any chapter on the history of plastic surgery. This may be a reason why residents preparing for their examinations may be lacking in their knowledge on the history of their specialty.

Aesthetic versus Esthetic

It may come as a surprise to even a plastic surgeon that while Converse (1964[1] and 1977[2] editions) and its 1990 edition, edited by McCarthy,[3] used "esthetic," its further editions by Mathes[4] in 2006 and Neligan[5] in 2012 replaced it with "aesthetic." At present, all books use the spelling "aesthetic." Some beauty salon workers in United States call themselves "estheticians." Thus, the main differentiating factor appears to be medical versus nonmedical personnel.

Aesthetic Surgery versus Other Surgical Specialties

Aesthetic surgery differs from all other surgical specialties. It is the only surgical treatment where various workers performed or continued to perform operations for several years or even decades but never rushed to claim the title of "I am the first." This was because these operations were not accepted by the medical profession and were even labeled as medical "malpractice." Thus, Eugen Hollander, Erich Lexer, and Jaques Joseph performed facelift surgery in 1901, 1907, and 1912, respectively, but published their findings only in 1932, 1931, and 1921, respectively.[16–18] As late as 1981, Baker wrote that "the most significant advancement in recent years in aesthetic surgery was the acceptance of this specialty both by the public and the medical fraternity."[19] That the specialty has been accepted was also seen in the article by Fischer published in 1990 where he claimed "I am the first."[20]

Aesthetic surgery is one area of medicine that makes widespread use of the term "client" rather than "patient."[21] This is because "aesthetic surgery" seems to be a label for those procedures that society, at any given time, has considered unnecessary, nonmedical, and a sign of vanity. It is an elective surgery performed on normal regions of the body with the sole purpose of improving the person's external appearance and/or erasing the signs of aging. This, in turn, improves the patient's self-esteem, facilitating social integration. These patients are seen as "not really sick." Rather aesthetic surgery patients are "not patients at all." That is why many insurance companies do not include them in their basic coverage. Even the government also demands service tax from these patients, often making the surgeries out of reach for those who are economically weak and continue to suffer (e.g., patients with gynecomastia and gigantomastia).

Plastic Surgery versus Aesthetic Surgery versus Cosmetic Surgery

The word "plastic" ("plastique") comes from "*plasticus*," which is Latinization of the ancient Greek adjective "*plastikos*" ("fit for molding"). It was first used by Pierre Joseph Desault in 1798. In1818, a German surgeon Karl Ferdinand von Graefe published a monograph named "Rhinoplastik."[22] Following Graefe's work, there was a surge in doing various "_____plasties." To avoid a plethora of such terms after the model of "rhinoplasty," Eduard Zeis wrote a book entitled *Handbuch der Plastichen Chirurgie* in 1838 and adopted and popularized the term "plastic surgery."

Sir Harold Delf Gilles (1882–1960), a New Zealander who worked at Sidcup (United Kingdom), is considered the "father of modern plastic surgery." He defined reconstructive surgery as an attempt to restore an individual to normal, while aesthetic surgery attempts to surpass the normal.[2] He saw "aesthetic surgery" as a natural subordinate extension of "reconstructive surgery." He said, "No man is a plastic surgeon until he is adept at both."

The word "cosmetic" is derived from the Greek word "*kosmtikos*," meaning having the power to arrange and skill in decorating.[23] Aesthetic surgery is called "cosmetic surgery" both by the common man and by plastic surgeons. In addition, even surgical literature has used the terms "plastic surgery" and "cosmetic surgery" synonymously leading to an intermingling of literature on the subject of "history of aesthetic surgery," the way the term "aesthetic surgery" is used today. The April 1971 issue of *Surgical Clinics of North America* was dedicated entirely to "cosmetic surgery." The first article was titled "A brief history of cosmetic surgery."[16] However, it also included articles on "treatment of facial paralysis" and "reconstruction of the breasts," which are reconstructive in nature. The first issue of *Clinics in Plastic Surgery* was published 50 years ago in 1974, and since then, it has regularly brought out issues devoted solely to aesthetic surgery topics.

Aesthetic Surgery from Antiquity to Late 19th Century

Sushruta (600 BC), from modern day Varanasi, India, is considered the "father of plastic surgery" all over the world.[24–26] He described not only techniques for nasal reconstruction, skin grafting, and several surgical instruments but also repair of split ear lobules and measures to induce hair growth or removal, which were surely aesthetic procedures for that era. He described operations on all parts of the body in *Sushruta Samhita*. It will not be an exaggeration to call him the "father of surgery including plastic surgery." In *Ayurveda*, beauty refers to physical, mental, and spiritual health. For physical beautification, various cosmetics were used as creams and pastes, etc. ("lepa," "alepa," "pralepa," etc.), as detailed in *Ayurveda*, which was written thousands of years ago in India.[27] *Ebers Papyrus* from Egypt also mentions the use of various cosmetics.[28] Apart from cosmetics, ornaments and clothes were the only means available for beautification till the late 19th century. However, they did not have the capacity to change the human shape.

Aesthetic Surgery from 1881 Onward

Aesthetic surgery had a beginning in the late 19th century. Quite understandably, it could not have started earlier

because of the nonavailability of anesthesia and the risk of infection. Edward Ely, a surgeon in New York, performed the correction of prominent ears, considered a purely aesthetic procedure in 1881.[29] John Orlando Roe of Rochester performed reduction of a bulbous nasal tip using the endonasal approach under local analgesia and published an article entitled "The deformity termed Pug nose and its correction by a simple operation" in 1887.[30] Four years later, he widely undermined the nasal skin and used an angulated scissors to cut off the nasal hump until a smooth dorsum was achieved.[31] It is interesting to note that Roe also told his colleagues how to avoid being sued for malpractice.

Jacques Joseph (1865–1934) reported his technique of rhinoplasty using external incisions in 1898. He performed aesthetic rhinoplasty in Berlin and described the steps of technique in a rigorous sequence still used today with minor variations. He also devised several special instruments for rhinoplasty. In 1931, he published his book *Nasenplastik und sonstige Gesichtsplastik* (*Rhinoplasty and Other Facialplasties*), which remained an unsurpassed textbook for several decades. He stated that a plastic surgeon must be a "sort of an artist."[16,17] He published before and after photographs of the results of facelift operations. Fearing public castigation, he reported the facelift operation done in 1912 after a decade in 1921. He was the first to mention emphatically that there were sociologic aspects in cosmetic surgery. Because of his great contributions and accomplishments, he is considered the overall "father of corrective aesthetic rhinoplasty."

Frederick Strange Kolle (1871–1929) was an American surgeon (born in Germany). Before World War I, the publications and operations were very few. Because of the growing need for more written material on plastic and cosmetic surgery, he published his book entitled *Plastic and Cosmetic Surgery* in 1911. Although not providing something new, it covered all existing knowledge. He described surgery on eyelid and partial excisions of skin and injection of paraffin into wrinkles. He was also considered an "X-ray pioneer."

John H. Woodbury (1851–1909) was a self-trained dermatologist and actually not even a medical doctor as he never studied in a medical school.[32] He not only developed and sold proprietary soaps and beauty creams but also established a dermatologic institute in New York with branches in six cities in the United States. His 25 physician/surgeon employees performed a variety of cosmetic operations on the face, ranging from otoplasty and rhinoplasty to correction of frown lines and reduction of the large lower lip and ear lobule, etc., under his supervision. He published mainly in lay magazines. In the year 1892, his advertising budget was $150,000! He conceded that although he used the title of "doctor," he was not. Because of several of his illegal activities and court cases against him, he committed suicide. He was never considered an aesthetic surgeon and found no mention even in books devoted solely to the history of cosmetic surgery published in 1997[33] and the history of plastic surgery in 2007.[34] It was only in 2015 that Denkler and Hudson's article brought his works to our attention.[32] These authors concluded that he was the first cosmetic surgery entrepreneur and an innovator of several cosmetic surgical procedures. However, knowledge about their existence was lost to medical historians because of their publication in lay literature.

Charles Conrad Miller (1880–1950) studied medicine in Louisville and practiced in Chicago.[35] He is probably the only person in medicine to be called the "father of modern cosmetic surgery" and "something of a surgical visionary, years ahead of his more academic colleagues" on the one hand and an "unscrupulous charlatan" and "an unabashed quack once charged with illicit drug traffic" on the other hand. Actually, anyone practicing the so-called beauty surgery in those days was labeled a "quack."[36] He published the first textbook on cosmetic surgery titled *The Correction of Featural Imperfections* in 1907. He wrote[16–18]:

> "…cosmetic surgery is a special field worthy of the closest study of the ablest of our profession, for he who operates or treats these cases has the future happiness and peace of mind of the patient at stake. Operations for improving the appearance cannot be botched. The operator must be skilled and fully capable in this field more than in any other."

How true this is even today. The second and third editions were published in 1908 and 1925, respectively. He wrote 40 articles on cosmetic surgery.

Miller left no part of the face untouched by his cosmetic surgical techniques. He used paraffin injections extensively, especially for saddle nose. Later, he replaced paraffin with crude rubber mixed with gutta-percha, which was grounded in an ordinary spinach grinder! His boldness in performing this unknown and hitherto undescribed type of surgery was matched by his fervent desire to educate his surgical colleagues. Somewhere along the line of his potentially valuable services to the medical profession, he ran contrary to law and was found to head a syndicate that owned three "quack drugstores" in Chicago. The five "doctors" who wrote prescriptions in these stores were actually drug store clerks. He was not accepted by the profession.[16–18]

John Howard Crum (1888–1975) was another controversial figure. He obtained a degree in 1909 from an obscured institution, unrecognized by the American Medical Association, but was allowed to practice in New York after 19 years. He performed a facelift operation in the ballroom of a hotel in 1931 in front of 600 people who were there for a convention of beauty shop owners. He repeated this operation 1 year later on a lady, just released after being in prison for 20 years. He convinced her that her appearance had made her a criminal. The public opinion about Crum was that he was "plastic surgery personified."[34] In 1928, he published a book entitled *The Making of a Beautiful Face*. He wrote: "A woman's beauty has been one of her "most valuable assets" and "those who are beautiful and not dumb invariably find their paths in life easier than do homely woman of equal intelligence." Every woman owes it to herself to look as good as she can and "avail herself of every possible aid to increase her attractiveness." He felt that an aging face "brings more anguish to womankind than an actual physical deformity."

Suzanne Noel (1878–1954), a French, was the first woman to perform aesthetic surgery.[16–18] In 1926, she published her first book *La Chirurgie Esthetique, Son Role Social*. After Miller's three editions of book solely on the subject, it was the second book devoted entirely to cosmetic surgery. It was remarkable that her publication came when very renowned contemporary surgeons who were performing the same operations had no guts to publish on purely cosmetic operations. She described not only various techniques but also the importance of aesthetic surgery to society. She stressed the importance of physical appearance on the personality and the value of fighting against the ugliness of age to give one moral strength and confidence in life. She pioneered the rights of women to undergo cosmetic surgery and helped establish the facelift operation. Her most common operations were reduction mammoplasty and facelift although she also performed rhinoplasties, otoplasties, and various other types of aesthetic surgery.

Max Thorek (1880–1960) was a major figure in American surgery in the first half of the 20th century. His biggest contribution to aesthetic surgery was his eloquent defense of its value. The surgeons of his times used to criticize those who performed these types of surgical procedures, but when a man of his stature defended the procedures and developed new ones, aesthetic surgery was elevated to a new level of respectability.[37] He described a technique of reduction mammoplasty, modified the existing technique of abdominoplasty, and wrote the first book in the English language devoted entirely to the plastic surgery of breast and abdomen in 1924.[38] He founded the International College of Surgeons in 1935 and an International Museum of Surgical Science in Chicago in 1954.

Technological Advancements

Liposuction

Among technological advancements, liposuction for body contouring was a disruptive innovation and has now become the most common aesthetic procedure performed globally. It is a safe, simple, and effective technique. Initially, contouring was done by extensive dermolipectomies with extensive scars.[39–43] In 1921, Charles Dujarier, a French surgeon, performed fat removal of the calves and knees in a dancer using a uterine curette and the patient ended up with an amputation of a leg. Schrudde also used uterine curette and had high rate of multiple complications.[44] Modern liposuction started with the technique and instruments of a father–son duo, Arpad and Giorgio Fischer, dermatologists from Rome who first used blunt suction cannula attached to an electric aspirator. They made three small incisions and used tunnelling. Yves-Gerard Illouz from Paris used a blunt carman cannula attached to a very high vacuum. He is credited with creating the "wet technique" and worldwide publicity for the procedure. Liposuction has undergone several technological advancements over the last 3 decades by exploiting various sources of energy, namely, laser-assisted, radiofrequency (RF) assisted, ultrasound-assisted (vibration amplification of sound energy at resonance [VASER]), and water-assisted devices, etc., to facilitate traditional procedures. Power-assisted liposuction (PAL) reduces the surgeon's fatigue.[45]

Lasers and Other Energy-Based Devices

The term "laser" is an acronym for "light amplification by stimulated emission of radiation." Although Albert Einstein originally outlined laser theory in 1917, it was not until 1959 that Theodore Maiman, an American physicist, produced the first working laser for clinical use.[46] In 1963, Leon Goldman, a dermatologist, published the first study on the effects of lasers on skin.[47] He described the selective destruction of pigmented structures including hair follicles. He is considered the "father of lasers in medicine in the United States." In the last six decades, a large number of different lasers with different effects have been developed. They have become a great tool in the hands of a present-day aesthetic surgeon for facial rejuvenation, resurfacing of photoaged skin, improving the appearance of scars, eradicating wrinkles, and in achieving removal of hair and pigmented lesions (e.g., vascular and melanocytic lesions), etc. Newer technologies such as high-frequency ultrasound and RF (monopolar, multipolar, and fractional) devices have been developed to tighten the skin noninvasively.

Implants

From the use of paraffin, crude rubber, gutta-percha, and ivory at the beginning of the last century, we have come a long way. Implants made of silicones are now being used for augmentation of breasts, nasal dorsum, chin, calf, etc. The first modern breast implant made of silicone was introduced by Thomas Cronin and Frank Gerow in 1962. They had a smooth outer surface shell filled with thick viscous gel. Since then, several modifications have been done so that we now have the fifth generation of silicone implants.[48] High-density porous polyethylene is another product used to augment facial bones instead of using autogenous cartilage or bone.

Aesthetic Medicine

With a greatly increased demand for aesthetic surgical procedures, it is but natural that several nonsurgical techniques are being developed to get the same/similar results without going under the knife. Most of them either do not require anesthesia or can be done under local anesthesia. The patients also show a preference for them. The scalpel is being replaced by a needle. Unfortunately, this has also resulted in an ever-increasing number of beauty parlors and charlatans and even practitioners of specialties like dentistry, gynecology, etc., performing aesthetic procedures for which they were never trained during their medical training. Various skin care products, injection treatment in the form of fillers, etc., are now available to reduce the effects of aging and improve the appearance of scars. Botulinum toxin is used to reduce wrinkles due to overactive muscles underneath the skin. Various peeling agents, synthetic chemicals and plant based, are now available for rejuvenating the skin. Mesotherapy is another such modality.

Coming Out of the Closet: Present Status of Aesthetic Surgery

Over the last four to five decades, the specialty of aesthetic surgery is now at par with other surgical disciplines. It is now being practiced by highly qualified and trained surgeons. The American Society for Aesthetic Plastic Surgery (ASAPS) was founded in the late 60s, with its first annual meeting held in 1969.[19] It publishes its journal, initially called *Aesthetic Surgery Quarterly*, which was renamed *Aesthetic Surgery Journal* in 1996. The International Society of Aesthetic Plastic Surgery (ISAPS), the world's leading professional body for board-certified aesthetic plastic surgeons, was founded in 1970. Today, it has over 5,000 members from 117 countries. It brings out its journal under the name *Aesthetic Plastic Surgery*.

The report of the annual Global Survey by ISAPS, released in September 2023, showed an increase of 11.2% in procedures in 2022, with more than 14.9 million surgical and 18.8 million in nonsurgical procedures. Liposuction remained the most common procedure in 2022, as in 2021, with more than 2.3 million cases performed, an increase of 21.1%. The other commonest procedures are breast augmentation, eyelid surgery, abdominoplasty, breast lift, and rhinoplasty. Botulinum toxin and hyaluronic acid injections are the commonest nonsurgical procedures. Gynecomastia was the third most common operation in men.[49]

India is not far behind. Since the start of the 21st century, the number of cosmetic procedures performed in India is increasing at a tremendous speed because of improved socioeconomic status. More than 0.38 million surgical and more than 0.32 million nonsurgical procedures were performed in 2022. Liposuction, rhinoplasty, and gynecomastia were the top three procedures performed in India.[49] The younger generation is also opting for this intervention to conform to changing norms of beauty. Indian Association of Aesthetic Plastic Surgeons (IAAPS), founded in 1995,[50] organizes its annual conference regularly. The latest (19th) was held from March 26 to 30, 2024, in Gurugram, NCR Delhi. Apart from this, it has regularly held "Aesthetic Pathshala" or webinars since the onset of COVID-19, with presenters being invited from all over the world. In addition, there are several associations of plastic surgeons who do reconstructive as well as aesthetic work. There are now associations devoted solely to, say, hair transplant or breast , etc. Regular conferences, continuing surgical education and workshops, are being organized and attended in large numbers. Younger surgeons are visiting high-volume centers in India and abroad to learn directly from the stalwarts. Fellowships in aesthetic surgery are now available nationally as well as internationally.

Almost three to four decades back, it was considered "normal" to first seek a psychiatrist's opinion for almost every patient demanding aesthetic surgery. Society has accepted the need, and those opting to undergo these procedures are much less frowned upon by peers. Unfortunately, still there are no clear laws governing accreditation as to who can perform a given surgery. Thus, many unqualified persons are performing these procedures with complications and unsatisfactory results, bringing a bad reputation to the specialty. The general public needs to be educated in this regard. An attempt was made in 2011 in our country to dedicate a day as the "National Plastic Surgery Day." July 15 is celebrated every year to educate the public about the spectrum of conditions we treat and help the poor by providing free surgery on this day. This program was so successful that it is now celebrated as the "World Plastic Surgery Day" since 2021.[51]

Funding
None.

Conflict of Interest
None declared.

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