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### **Aesthetic Dermatology in Ancient Egypt**

Mohamed Hany El-Tonsy, MD<sup>1</sup>, Wael Hossam El-Din, MD<sup>1</sup> and Samar Mostafa Kamal, PhD<sup>2</sup>

<sup>1</sup>Dermatology Department, Faculty of Medicine, Minia University, Egypt

<sup>2</sup>Faculty of Tourism and Hotels, Minia University, Egypt

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Corresponding author: Mohamed Hany El-Tonsy, MD

E-mail: mohamedhany.eltonsy@gmail.com

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#### **Abstract**

The Egyptian temples, tombs monuments are almost covered by colorful drawings. Drawings and sculptures reflect an obvious sense of beauty. Aesthetic dermatology is modern medical term referring to a medical specialty that takes care of the health and beauty of the human skin.

It is interesting to find out that ancient Egyptians treated their skin diseases and tumors as we do. They regarded beauty as a sign of holiness. Cosmetics were an integral part of their daily lives. In tombs, cosmetic palettes were found buried with the deceased as grave goods which further emphasized the idea that cosmetics were not only used for aesthetic purposes but rather magical and religious purposes. It is interesting to document that several practices in the modern specialty of aesthetic dermatology can be traced back to ancient Egyptian practices. Dermabrasion,

microdermabrasion, several cosmetics and phototherapy are examples of modern tools to be traced back in history.

### **Keywords**

Egypt, ancient, dermatology, aesthetic, cosmetic, skin, beauty, human

#### 1. Introduction

Aesthetic medicine and in particular dermatology is concerned with human beauty. The ancient Egyptian culture values beauty in various aspects. The aim of this work is to search in both medical and historic literature exploring the roots of the growing modern medical specialty.

# 2. What is Aesthetic Dermatology?

Dermatology is the branch of medicine dealing with the hair, nails, skin and its diseases. [1][2] It is a specialty with both medical and surgical aspects. [2] [3] [4] A dermatologist treats diseases, in the widest sense, and some cosmetic problems of the skin, scalp, hair, and nails. [4] Cosmetic procedures are becoming increasingly popular with dermatologists. [5] They are used to reverse the effects of aging, to improve the quality of the skin, to augment facial structures, and to improve the patient's appearance in general and can also be beneficial for certain dermatoses. [6] The term aesthetic or cosmetic dermatology emerged from the evolution in the scope of the specialty of dermatology.

## 3. Historic evolution of cosmetic procedures

Skin resurfacing procedures utilizing chemical exfoliation have been used for thousands of years. Ancient Egyptians first applied sour milk baths other fruit acids and oils for cosmetic skin renewal. It was not until 1882 that German dermatologist Unna reported on the unique peeling properties of trichloroacetic acid (TCA), phenol, resorcinol and salicylic acid. By the middle of the 20th century physicians have effectively learned to use phenol and TCA peels for facial rejuvenation and the improvement of acne scarring. The much-popularized superficial agents such as  $\alpha$ -hydroxy acid

(AHA) became widely available by the late 1980s. [7] The concept of abrading the skin, or removing the upper layers, for skin rejuvenation dates back as far as 1500 BC, when Egyptian physicians used a type of sandpaper to smooth scars. More recently, in the early 1900's in Germany, Kromayer used rotating wheels and rasps to remove the upper layers of the skin. Because these instruments were human-powered, they were wieldy to use and therefore not used very often. In the mid 1950's motorized wire brushes replaced their human-powered predecessors and the use of dermabrasion became more commonplace. In 2005 Microdermabrasion was one of the top 5 aesthetic procedures performed in the United States. There were almost 150,000 microdermabrasion procedures performed, which is an increase of 26% from 2003. It was developed in Italy in 1985 and introduced to American markets in the mid 1990's. To avoid the risks of dermabrasion, the first microdermabrasion machine was developed in 1985 in Italy by Dr.(s) Mattioli and Brutto. This first machine was a "closed-loop" system, meaning the skin that was abraded was returned to a "dirty" container in the machine instead of being aerosolized. Microdermabrasion machines were introduced in America the mid-late 1990's, and the production of microdermabrasion machines has exploded. [8] Microdermabrasion is a light cosmetic procedure that uses a mechanical medium for exfoliation to gently remove the outermost layer of dead skin cells from the epidermis. Most commonly, microdermabrasion uses two parts: an exfoliating material like crystals or diamond flakes and a machine based suction to gently lift up the skin during exfoliation (Fig 1). It is a non-invasive procedure and may be performed in-office by a trained skin care professional. [9]



Figure 1. Modern microdermabrasion machine



**Figure 2.** The iconic bust of Nefertiti is part of the Egyptian Museum of Berlin collection, currently on display in the Neues Museum. Wikimedia commons © CC BY-SA 3.0 Philip Pikart - Treball propi

## 4. Aesthetic values in ancient Egypt

It is interesting to find out that tracing cosmetic procedures back in history frequently starts in ancient Egypt. Reviewing few of the vast numbers of ancient Egyptian remains obviously display the high aesthetic values possessed by the ancient Egyptians. The Nefertiti bust [Fig. 2] is a 3,300-year-old painted limestone bust of Nefertiti, the great royal Wife of the Egyptian pharaoh Akhenaten, and one of the most copied works of ancient Egypt. Owing to the work, Nefertiti has become one of the most famous women of the ancient world, and an icon of feminine beauty. The work is believed to have been crafted in 1345 BC by the sculptor Thutmose. [10] The Egyptian woman in the Pharaonic era, focused on her beauty in a way that was unprecedented in human history. Every woman dedicated a box for her own cosmetic materials and tools, each had her own face powders, kohl, hair combs and hairpins and that ancient Egyptian women mastered hair styling. The importance of cosmetics and beauty in ancient Egypt reached to the point that marriage and divorce contracts stipulate that the husband pays spousal monthly stipend for cosmetics and accessories. There are archeological proofs of building beauty powders manufactures in Memphis since the beginning of the old state until the end of the modern state. [11]

Cosmetics have different philosophical, cultural, and historical aspects that go back from the times of the Pharaohs, the Romans, the Greeks, and the Arabs, through the medieval and Elizabethan periods and into modern times.

Female beauty revealed through cosmetics has been always important for its effect on self-image in many ways. It has been represented in different patterns through the fine arts of many civilizations. It has been visualized in carvings and portraits, and was shown on many statues through the centuries. [12] The aim of artists was to show the beauty and explore the attractive parts of the female body in their work. Since the invention of motion pictures and television, the depiction of women's features has been explored and used for different purposes, but mainly the expression of beauty. [13]

## 5. Ancient Egyptian medicine

Egyptian physicians were much sought after in the Ancient World, despite the fact that possibly but little was added to the canon of knowledge after the First Intermediate Period (about 2000 BCE). Ramses II sent physicians to the king of Hatti and many rulers, the Persian Achaemenids among them, had Egyptian doctors in attendance. [14] [15] Our thanks to "..." for allowing us to modify templates they had developed.

## 6. Cosmetics in ancient Egypt

Egyptian papyruses (Georg Ebers Papyrus, Edwin Smith Papyrus) are filled with recipes for cosmetics. To prevent or diminish wrinkles, the Egyptians employed a mixture of incense, wax, freshly squeezed olive oil, and cypress, combined with fresh milk and applied to the face for 6 days. [16] The favorite hair dyes were henna, ointment from the black soot of aromatic resins, and lead ore with plant decoctions. Seven different types of ointments were put into graves as burial offerings for afterlife. Protection against dryness of the skin was accomplished by whole-body application of oils and ointments with different perfumes. [17] [18] Ancient Egyptian women used clay and herbal masks as far back as 69 BC. They believed that clay will draw out toxins from deep within the skin, and that masks are useful for dry skin. The "Papyrus Ebers" records the use of aloe' in many different cosmetics, as well as a medication for burns, cut wounds, and skin rashes. [19] As for the details of the usage of eye make-up/eye-paint ("kohl") by the human population of ancient Egypt, there is sometimes a degree of uncertainty with respect to the dates of usage, exact original composition of the kohls and their reason(s) for usage (i.e. if cosmetic and/or medicinal and/or magico-religious and if used as cosmetics, were they used on the eye and/or face). However, all the authors agree that there was green eye-paint initially and "a little later" black eye-paint and that it was used for one or more of the above reasons by men, women and children from all social levels. The green eye-paint was usually the ore malachite, basic copper carbonate, which was mined in Sinai and the Eastern desert. It has been found in Badarian/pre-dynastic (i.e. 5000-3000 BC) tombs.

[20] Until recently it was assumed to have been used until at least the nineteenth dynasty (i.e. c. 1250 BC) [21] [22]. However, a more recent publication [23] states that the green (malachite) eyepaint "... seems to have been used only until the middle of the old kingdom, when it was replaced by the black galena-based form..." The middle of the old kingdom was c. 2500 BC. Results of many analyses of tomb funerary gifts of black/grey-black eye-paint show that often the main component was the ore galena (lead sulphide). This ore was mined in several localities in Upper Egypt. Sometimes, malachite and galena were also imported, often from Arabia via "Punt" (which was probably the present-day Eritrea/Somalia). Both eye-paints occur, either individually or together, in several of the listed (papyri) therapeutic "recipes" used as eye salves by the ancient Egyptians. [20] Many ancient cultures practiced various forms of heliotherapy, including people of Ancient Greece, Ancient Egypt, and Ancient Rome. [24]

#### 7. Conclusion

In this historical review it was interesting to reveal that the modern subspecialty known as aesthetic dermatology rooted back in history to ancient Egypt. Medical advancement and the high aesthetic values in ancient Egypt lead to many practices that could be related to the modern subspecialty.

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