

## HENNA AND PSORIASIS

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### ABSTRACT

Henna plant was known to man since time immemorial. The parts mostly used were the leaves and flowers for medicinal and cosmetic preparations, while the branches and roots were used in domestic purposes. Henna was used by the ancient Egyptians thousands of years ago to dye their palms and feet prior to the wedding night. They also found that many skin infections were treated and cured successfully with it.

Henna Plant, named botanically *Lawsonia inermis* (sometimes called *Lawsonia alba*), Fam. Lythraceae, was known to man since time immemorial. It was called by the ancient Egyptians "Bokar" or "Kabra", and used to import it from the Middle East regions, Persia, India and other sub-tropical regions. The parts mostly used were the leaves and flowers for medicinal and cosmetic preparations, while the branches and roots were used in domestic purposes. (6)

Henna was used by the ancient Egyptians thousands of years ago, mention of it dates back prior to 3000 B.C. as stated in Ebers medical papyrus, written 1550 B.C. and was found as a hair dye on the mummy of the great Egyptian King Ramsis II (1290-1223 B.C.). Also the

ancient Egyptians used to dye their palms and feet with henna prior to the wedding night, by mixing henna leaves in powdered form with water, then the paste was put inside the palms and below the feet, both tied with strings and left over-night after which, they were untied, thus imparting them a red colouration. They also found, by this method, that many skin infections such as taenia and other mycotic diseases were treated and cured successfully, with the result, that these diseases were habitually easily cured. (6, 11 & 12).

The ancient Egyptians used steam baths with henna leaves as a beneficial cure for epilepsy and hysterical fits, while a mixture of henna leaves and flowers, soaked in warm water, strained, and the remaining fluid was

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used during all the Pharaonic periods as a paint applied to the feet cracks and fissures as a cure, and also as anti-perspirant, specially during the hot days of summer, and also applied to the mouth and body ulcers as an effective healing agent. Also, the strained solution from boiled henna leaves was taken orally as a popular blood restorative cure, and when infusing the leaves in vinegar overnight, served as a good pain-killer internally: (7)

For cosmetic purposes, henna flowers were used extensively to produce excellent perfumes, by extracting its volatile oil using animal or vegetable fat. Also was used as a nail-polish, either red or black, (mixed with indigo pigments as a blackening sub-dye), also as a cure for nail cracks. Henna flowers were also an important ingredient in hair-dye cosmetics, so as to produce a red or black dyes or other different intermediate colours. Again, henna powder was mixed with face and cheek powders together with bees-wax to produce red-orange colour (6).

Henna plant was customarily placed in the tombs and cemeteries before any burial, thus acting as a dehydrant agent, to prevent rapid deterioration of the dead bodies, while in mummification procedures, henna was used massively as a paint over the bodies as an astringent and anti-mycotic external agent. (6&7).

Also, henna paste was an important ingredient in the world-wide and very famous ancient Egyptian incense "Kifi", which was burnt in festivals and sacred ceremonies in the temples. (7).

In industry, a mixture of powdered henna leaves and flowers were mixed with water, and the resulting water soluble red-orange colouring dye was used during all the Pharaonic periods as a dye for their flax and woolen cloths. (7&8).

The use of henna dye for the hands and feet of the ancient Egyptians became a popular habit among the ancient Jews inhabiting the eastern regions of the Egyptian desert. The Old Testament recalls the words of king Solomon in his Epithalamium (i.14); "My beloved is unto me as a cluster of Samphire, in the vineyards of Engedi".

Astonishingly enough, henna dye became a common practice in many countries of Africa and Asia, thus when was applied to the hair, imparts it much brilliance, softness and fortification surmounting chemical dyes. In their common habit of adopting the ancient Egyptian life and customs, the ancient Greeks used henna extensively, which they called "Phygoros", while Dioscorides mentioned Henna in his famous book 'The Greek Herbal' and called it Kupros, and Pliny the Great referred it by the name Kyprus.

The ancient Greeks used henna preparations as a paint for gums inflammation and wounds, as well as a good agent for chronic ulcers externally. The Ptolemies of ancient Egypt and the Roman invaders used henna on a wide scale, in burial ceremonies in the form of circular bunches, made from the flowering branches. (4&7).

The Arabs, before and after the Islamic rise, esteemed henna very much, to the extent that the Prophet Mohammad described it as "the best of herbs" (1). He also used it as a poultice whenever he had a dermal ulcer or stung by a thorn.

Also the Prophet used to advise his followers to use henna dye whenever they complained of pain in the extremities;

The Prophet also said that henna tree is highly praised and beloved by Allah;

The Prophet also advised to use henna for dyeing grey hair together with Indigo;

The Prophet advised the Moslems to use henna dye which he described as the Master of Dyes, because it imparts the skin a fragrant odour and fortifies intercourse;

Also, the Prophet advised the use of henna dye because it makes one younger, prettier and sexually stronger;

The Arabs used henna flowers as a valuable external application in

the form of a paint, so as to relieve headaches, while a paste mixed with oil (sometime a resin was incorporated) and applied to the skin, will help to cure small-pox dermal affection.

During the Islamic Empire, henna leaves acquired a very big reputation in promoting the growth of scalp hair, and also the nails in the form of an ointment, while a gargle was used as an astringent in throat infections. Also, henna bark infusion was a useful remedy for the treatment of jaundice, enlargement of the spleen, bile stones and as an alternative in Leprosy and obstinate skin diseases. A decoction of henna leaves was commonly applied to burns and scalds for quick healing promotion. (9)

The Arabs used also henna seeds, mixed with honey and tragacanth powder, taken orally daily, as a good cephalic agent. Also, an infusion of henna flowers was customarily applied to bruises, causing quick disappearance of pain and black marks, while a pillow stuffed with henna flowers had the reputation of inducing sleep (2). The Arabs also prepared a volatile oil from henna flowers, having a fragrant odour, which they called "Duhn el-fughiya", and was used as a perfume (3). They also boiled henna flowers with water and applied the strained solution as a local treatment for acne vulgaris, whereas a paint obtained from a decoction of henna leaves was applied to the skin

and the scalp so as to nourish the epidermal cells and hair roots (the red colouring matter present in the henna solution gets absorbed through the skin and is excreted through the urine, thus imparting it a red colour). Also, henna flowers were mixed with fat and rose oil, applied to the joint and back pains as a sedative. Also, an ointment was prepared from henna flowers with fat, applied to chronic scabies. (10). A household use of henna flowers, practiced by the Arabs, was to place them between the folds of their woolen cloths so as to give them a fragrant odour and to expell moths.

Oral administration of a solution of boiled henna leaves in powder form was used by Arabs to cure dysentery and diarrhoea, due to its astringent properties. They also succeeded in preventing excessive skin perspiration by mixing henna leaves with acacia gum powder to form a paste and applied it to the skin, acting as an astringent and to harden and thickens the epidermis, drying also the wet surface and prevents any microbial or mycotic invasion. They also used henna paint on their hands, whose skin got wrinkled due to excessive exposure to water (during washing cloths for instance), thus water loss from the skin was decreased and the skin was protected(9).

In ancient India, an extract prepared from henna flowers and leaves

was a common remedy for leprosy, through the oral intake of a 1/2 tea-spoonful twice daily. They also used henna leaves externally in case of cutaneous affections, while the leaf juice when mixed with water and sugar, was given as a remedy for spermatorrhoea. Also, the leaf juice mixed with cow milk and taken orally, was a useful treatment for a condition called "hot and cold fits". The aged Indians used to beat henna leaves to form a paste after being mixed with vinegar and applied as a poultice to the soles of the feet in case of burns to relieve their pain, (sometimes the bruised leaves were used with strong friction for the same purpose). The use of the henna preparations are still in use throughout the folk-traditional medicine in many parts of south east Asia up till now(5).

Morphologically, henna leaves are opposite, smooth, short petioled oblong or broad lanceolate, pointed at both ends, an inch or more long and less than half an inch broad. The flowers are in terminal, globular, cross-armed panicles, small, greenish white and very fragrant. The fruits are round, of the size of a peppercorn, four grooved, with the apex depressed, four-celled. The seeds are angular and the roots are red in colour.

The decoction of henna leaves is of a deep orange-red colour, which is destroyed by acids and deepened by

alkalies and vegetable astringents. It stains the skin orange-red which does not disappear until the epidermis has been renewed.

Henna leaf extract contains a volatile oil, a crystalline principle "Lowson" ( $C_{10}H_6O_3$ ), mannite, red colouring tannin "Hennotannic acid" (which is a brown substance, of a resinoid appearance, soluble in boiling water, and possessing the properties of tannin, while heat decomposes it giving rise to crystalline needles which reduces silver nitrate solution). Henna leaves yield with boiling water, a colouring matter which is soluble in glycerine, strong potash and ammonia solutions together with dilute acids. The leaves also yield 2% olive green resin, soluble in ether and alcohol (5).

Encouraging results have been obtained with the direction of henna leaves, prepared tested in various concentrations for a period of six months on a group of seventy patients of different sexes and ages suffering from nail root mycosis.

Clinical investigations and trials have also been made with strained solution of henna leaves decoction, painted on the affected areas in various concentrations with encouraging results on a group of one hundred and twelve patients of different sexes and ages, suffering from psoriasis, that is skin disease whose

treatment form a major problem in dermatology. Several factors influence its onset, the most important of which is heredity. Others may be infection, streptococcal tonsillitis in childhood being the precipitating cause of 50% of acute cases, appearing as an allergic response to that infection. Other causes may be deprivation of sunlight, mental stress, hormonal factors, drug allergy such as chloroquine, chlorpropamide, practalol and others. Psoriasis lesions are red or pink areas with silvery scaling which may become heaped up on the affected areas. It is found that, in most of the cured cases, the affected red swollen areas of the skin returned gradually to normal with disappearance of the scales starting from the third month of daily application of the paint thrice and left to dry.

Application of henna decoction will be of great benefit to those workers in corrosive materials such as cement, gypsum...etc., which will cure their skin erosion or even prevents it through the application of an insulating layer of henna ointment. Also nail root inflammations caused by taenia or other myco-organisms could be cured with henna paint, acting as a mycostatic agent (replacing the crimson coloured dye of of castellani's paint and more effective).

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सारांश

## मेंहदी तथा सोरियासिस

— समीर याह्या अल गम्माल

मेंहदी के पौधे का ज्ञान मानव को प्राचीनतम काल से है। इसके प्रयोज्य अङ्गों यथा पत्र एवं पुष्प का अत्यधिक प्रयोग औषधीय तथा प्रसाधनीय योगों में किया जाता रहा है। इसके शाखाओं व मूलों का प्रयोग घरेलु कार्यों में होता था। हजारों वर्ष पूर्व प्राचीन मिस्रियों द्वारा मेंहदी का प्रयोग सुहाग रात से पहले कर व पाद तलों को रंगने के लिये किया जाता था। उन्होंने इसको बहुत से त्वकरोगों की सफलतापूर्वक चिकित्सा में भी उपयोगी पाया।

