

Vitiligo: Types and Treatment According to the Most Renowned Arab Muslim Scientists

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Summary

Introduction: Vitiligo is one of the oldest diseases that have afflicted people. It was firstly described by old Egyptians in Ebers' papyrus more than four thousand years ago. In this presentation, focus will be on the contribution of Muslim Arab scientists to the field of Vitiligo.

Aims: The purpose of this research is to shed light on an important aspect in Islamic Arabic heritage in relation to dermatology, as regards old Muslim Arab physicians. It has been found out that Abi Al-HasanAl-Tabari (375 H.-985 A.D.), a physician of the fourth hegira century, tackled several medical issues in his book, Hippocrates Treatments, among them is Vitiligo. Vitiligo was also mentioned in Al-Razi's, IbnSina's and Al-Zahrawi's books. Because of this, we have chosen to study this disease as it has been the concern of old and contemporary physicians' treatments.

Methodology of research: The research type followed in this study is the historical retrieval, through going back to old medical books especially Abi Al-HasanAl-Tabari's Hippocrates Treatments, especially the seventh article which consists of sixty chapters, of which the tenth chapter is dedicated to talk about Vitiligo. Other Arabic medical books that handled Vitiligo were Al-Razi's Al-Mansouri in Medicine (375 H.-985 A. D.) and Al-Zahrawi's Managing (404 H.).

Results: 1- Muslim Arab scientists differentiated between Vitiligo and leprosy. 2- Al-Zahrawi classified Vitiligo into three types. 3- Abi Al-HasanAl-Tabari specified a complete chapter to talk about Vitiligo and its treatment.

Conclusion: Vitiligo has been known since oldest times. In this respect, Muslim scientists contributed to the field of Vitiligo with respect to diagnosing this disease relying on strong observation and the disease distinguishing features. However, up till now it has not been often found any effective medication for such a disease.

Key words: Vitiligo, Hippocrates Treatments, Abu Al-HasanAl-Tabari, Arabic medicine, Islamic medicine, Al-Zahrawi.

Introduction:

Skin is the largest organ of the body and the easiest to see. It has attracted the attention of people from times of old. In this presentation, focus will be on the contribution of Muslim Arab scientists to Vitiligo.

Dermatology originated and developed as a specialty in Europe in the seventeenth century only. Vitiligo is considered one of the most important skin diseases because of its commonness. Its spread is estimated as 1% of the total world population. It is thus an old disease.

In our Arabic language, this disease is known as "al-buhak". In Latin, it is known as "Vitiligo", a word derived from the Latin root "vitiug", meaning the spot.

In the Middle Ages, people linked Vitiligo to non-purification and sometimes compared it to leprosy. It can be said that Vitiligo is a skin disorder that results in the whitening of one of the body skin areas. This whiteness takes the form of spots that stretch circularly due to a disorder in the skin pigmentation cells and it does not affect the skin layers.

Vitiligo has been classified into four types according to the stretching and distribution of affected skin areas [2].

- 1- Localised focal Vitiligo: It affects one non-sectional area. It might affect a dermatome or a bundled skin area. This is known as sectional Vitiligo, which is hard to treat if it afflicts old people.
- 2- Generalised Vitiligo: It is the most common type. Affliction is symmetrical. The most afflicted areas are the face, the upper part of the chest, the back of hands, the armpits, and the sides. There is also a tendency to afflict those parts which have capillary follicles, like the eyes, the nose, the mouth, the penis, and the vagina.
- 3- Universal Vitiligo: It afflicts the skin of the whole body.
- 4- Arco-Facial Vitiligo: It afflicts finger terminals and areas around the face orifices.

There is also a type of Vitiligo known as Occupational Vitiligo. The factors include chlorokinine group. This type afflicts people working with rubber and gloves industry, where anti-oxides exist.

Importance and purpose of research:

Because of the fact that Vitiligo has not been the concern of academic study of contemporary researchers in Arabic medical heritage, and because foreign books about Vitiligo have not talked about the achievements of Muslim Arab physicians in the Middle Ages, it seems important to shed light on this disease, hoping that this study will pave the way for other studies to be done in relation to old physicians.

The research aims at knowing an important aspect of Islamic Arabic heritage in relation to dermatology, as regards Arab and old Muslim physicians.

Methodology of research:

The research type followed in this study is the historical retrieval, through going back to old medical books especially Abi Al-Hasan Al-Tabari's *Hippocrates Treatments*, especially the seventh article which consists of sixty chapters, of which the tenth chapter was dedicated to talk about Vitiligo. Other books that have been consulted were Arabic and foreign medical books that talked about Vitiligo at the time of the European revival and later.

First: Vitiligo according to old Egyptians

Old Egyptians were the first to talk about Vitiligo in Ebers' papyrus more than four thousand years ago. How-

ever, the use of khillaplant in treating Vitiligo goes back to Ibn Al-Bitar in the thirteenth century. This plant was mentioned in his book *Medical Terminology* under the name of "isterlal", which is a barbaric term meaning the "bird's leg", and is known in Egypt as the "crow's leg", "Satan's root", and "Satanic khilla". [13]

In this respect, the barbaric tribes in Morocco, known as Beni Shuaib, were the first to discover the benefit of this medication in treating Vitiligo. They used to sell this medication to the diseased but they kept it a secret. [13]

Second: Vitiligo according to some of the renowned Arab physicians

Islamic medicine was in its golden age between (750 and 850 A. D). The Muslim and Arab physicians and scientists held the torches of science all through five centuries at the time when Europe was blundering in ignorance and barbarism. A lot of renowned Arab physicians excelled in different fields and touched on the subject of Vitiligo and its treatments. They used to study the history of the disease and were concerned about check-up. They were able to describe new diseases and they could establish organic diagnosis rules with respect to dermatology.

1-Vitiligo according to Abu Baker Al-Razi who died in 313 H./925 A. D.

In his book, *Al-Mansouri in Medicine*, Abu Baker Al-Razi mentioned white Vitiligo saying: "Indian dittander, common cultivated radish seeds, cretan spikenard, chalk plant, and mustard are all crushed in vinegar and the skin is rubbed while being exposed to the sun. Or onion bibulous is rubbed many times a day if adequate. Or a few drams of buck-bean, a dram of turbith, a dram of hiera, quarter of a dram of colocynth are all taken four times a month. On other days, three drams of buck-bean are taken. As for black Vitiligo, clover dodder is taken several times. The skin is later rubbed using common cultivated radish seeds, chalk plant, or rocket seeds mixed with vinegar. Bathing is done together with having refreshing foods." [5]

2-Vitiligo according to Abi Al-Hasan Al-Tabari who died in 375 H.-985 A.D.

In his book, *Hippocrates Treatments*, Abu Al-Hasan Al-Tabari tackled the issue of Vitiligo in the seventh article under the tenth chapter. This disease was studied because of its importance. Abu Al-Hasan differentiated between Vitiligo and leprosy unlike the pioneers who considered both as one in treatment, especially in the case of white Vitiligo. But Abu Al-Hasan noted that the virtuous Jalinus

differentiated between white and black Vitiligo in look and appearance. Abu Al-Hasan noted the difference between Vitiligo and leprosy in appearance and look. He described Vitiligo as circular. Wherever it appears, it neither extends nor spreads since the time it appears. It always gets peeled and it often has the same colour of the skin. Its colour slightly differs from that of the skin. However, leprosy extends and spreads wherever it appears and it is white, clear, and glitters most of the time. This is the difference between the two regarding appearance and look. As regards matter, the difference between the two has to do with wetness which makes leprosy white, rotten¹, degenerated², and mixed³ with the flesh where it appears and supplies the organ and hair. It prevents proper nourishment of the organ, which gives the bone a new colour and nature and whitens the blood which reaches the spot. Nevertheless, Vitiligo is wet. It burns and gets like dust, between black and white in colour, which eliminates water. The blood factorises it and it runs through the veins. When the matter reaches the minute divisions, it gets out of the divisions heads and it gets located between the skin and the flesh. It becomes circular in form. It might burn and get black, which makes black Vitiligo. Both matters do not nourish the flesh and do not whiten the hair.

Abu Al-Hasan stated that treating white Vitiligo is done through considering the strength of the diseased, his age, temperament, practices, and work, in addition to considering the time of the year. If the time is

That when emptying is not appropriate, treatment has then to do with feeding only. This remedies the blood. Refreshing foods are taken. When emptying is possible in time, then resection is done if filled. Then, the spot where Vitiligo is located is to be considered. If the spot is on the chest and neck, it is then injected with mashed chamomile, melilot, and a small quantity of colocynth. If injected twice or thrice, then a rest is taken for a few days. At this time, feeding and drinking have to do with ten drams of cooked nucleus-removed black myrobalan, seven drams of embelia, three drams of belleric myrobalan and emblic-myrobalan, three drams of true senna, astokhodus, and centaury, lupine flour and ghaftu, Roman absinthe, and soilla, one dram and a half of Chinese ma-

miran and clocynth, two drams of celery seeds, aniseed, resin seeds, seven drams of clover dodder. All are bundled in a cloth with one dram and a half of crushed ryond, twenty drams of nucleus-removed sectarian raisins. All are cooked and the clover dodder bundle is closed and dis sinking. Then, the cooked is liquidated. The diseased is given a quantity that suits his strength. The complete drink weighs one hundred and twenty. Strengthening the diseased requires a complete drink which is one dram of gharqon, half a dram of terbid, one dram of danqeen, and three Antakiantasasej. The whole is crunched and impasted with honey. The drinker is given the choice to have the drink one hour before the cooked or get it soaked in what is cooked. The drinker has this drink twice over two months then he stops for a few days and gets enough food so as to get back his strength. If Vitiligo diminishes, then there is no need for rubbing, as bathing and massage dissolve it. But if it does not diminish, then gargling is prescribed using lousewort and pellitory. Later, the diseased is rubbed with one portion of sulfur, half a portion of Indian salt, half a portion of African rue, two thirds of a portion of common cultivated radish seeds and chalk plant, and two portions of artanitha. All are crunched and mixed with sour wine vinegar, then rubbed over affected areas for three consecutive days in the bath. The diseased perspirates, pours hot water, rubs the areas using a rough tissue, and covers the areas till the jalnjabeel and oxymel diminish, provided this is tolerated. This is the treatment of black Vitiligo. [6]

3-Vitiligo according to IbnSina who died in 428 H./1036 A. D.

In the second article of the seventh art of the fourth chapter of *Law of Medicine*, IbnSina stated that Black Vitiligo is not problematic. The problem is with the difference between illumination which is Vitiligo and bad leprosy. One of the differences between the two is that the hair which grows in areas of illumination is black and fair but the hair is white in case of leprosy. In relation to treating Vitiligo, IbnSina states that oleander foliage is boiled together with oil till it dries up. Oil is then strained. Strained wax is added in an adequate quantity. Yellow sulfur is sprinkled. This becomes like a jelly and rubbed while being exposed to the sun. [9]

4-Vitiligo according to Al-Zahrawi who died in 402 H.

In his book, *Managing Inability of Composing*, Al-Zahrawi wrote that Vitiligo is of three types, the dust-coloured, the black, and the white. The dust-coloured is of two types,

1. rotten: covered with greenness, p. 680 [3]
2. degenerated: having bad taste, p. 581 [3]
3. mixed with: mingled with, p. 713 [3]

the first is accompanied with itching and covered with date palm like date palm spelt wheat. The second is smooth and even above the skin surface. It is the result of a bilious matter and bitter blood. The black is of two types as well. It either starts from its own or it is transformed from the dust-coloured type. It results from black blood that is small in quantity and decomposed. The white is of two types. It results from thick and salty phlegm or from thick, sticky and non-salty phlegm. The dust-coloured leads to speedy recovery, but the black one is difficult to recover. The difference between white Vitiligo and leprosy is that white Vitiligo results from decomposed blood that nourishes the visible part of the body skin, without decomposing the blood inside. Leprosy has to do with decomposed blood on which the visible and inside skin get nourished. Dust-coloured Vitiligo, which leads to speedy recovery, is easy to manage. It generates new blood through having cold and refreshing foods and abstaining from foods generating acrid like garlic, onion, radish, and the like. Treating black Vitiligo is through emptying the black using gharqon and through abstaining from foods generating the black such as beef, goat meat, rabbit meat, lentils, oak, pear, and the like. Fattening the body, constant bathing, and taking light white drinks are of help. White Vitiligo is treated the same way leprosy is treated, but it is half the suffering. If it is accompanied with strong itching, red flare, fat and rosy body, then resection is good, so that the phlegm does not burn and does not lead to leprosy. [7]

Third: Vitiligo in the seventeenth century

Several theories were established to explain such a disease. But there is no specific and known reason behind this disease. However, it is agreeable that the cells carrying the melanin pigmentation lose both the pigmentation and the ability to form it. Among the most important theories are the following: [11]

The neurological theory: The disease happens as a result of neurological shocks and psychological heavy crises.

The silent glands theory: Vitiligo happens more than expected with those suffering from over-secretion thyroid and those suffering from Addison disease.

Self-immunity theory: Anti-melanin organisms were isolated from the plasma of Vitiligo-diseased people and from those suffering from other diseases. Large areas of the body and torso might be affected and the spots are surrounded with dark-coloured corona. Hair colour changes in the plasma spot gradually till it gets white.

Treatment: Melanin tablets are to be taken together with sun exposure, using cortisone compositions locally, and using cortisone through injection to lead to speedy spread

Fourth: Vitiligo in the contemporary ages

Vitiligo has acquired a bad reputation over the past few centuries because of its similarity to other dangerous diseases. Because of the fact that medicine did not reach an advanced state like that in our present time, it was natural that diseases got mixed together and both people and specialists were confused as to their nature and reality. The studies done showed that Vitiligo is an immunity disease (a disorder in the body immunity) which is non-infectious. It is transformed through heredity in about one third of the cases, and it happens for unknown reasons in the rest of cases. Vitiligo is a pathological independent unit and is similar, as regards lack of pigmentation, to other diseases like white bran, the many-coloured, khutham, and inflammatory membranes.

Albinism [2] is a disease similar to Vitiligo with respect to affecting the skin with white spots, but it differs as regards timing of spots appearance. In Albinism, spots appear since birth unlike Vitiligo which appears though life time. The disease reaches its climax in children and the youth, but it might affect people of all ages without differentiating between women and men. Vitiligo spreads in many areas, most of which are the skin around the mouth, the ear, the penis, the eye, the breast, the armpit, and the buttocks. [12]

Reasons for Vitiligo and its mechanism are still unknown up till our present age. A few theories explain its reasons whether psychological or hereditary. Thirty five per cent of the diseased have a family history of Vitiligo. The other theory is that of immunity. This theory assumes that Vitiligo has self-immunity, as Vitiligo is usually accompanied with immunity diseases like thyroid inflammation, baneful anemia, blood sugar, and tetter, in addition to the presence of qualitative opposites in the plasmas of Vitiligo-diseased people.

The neurological theory assumes that a matter is rejected in the skin terminals, which chills the blackish cells. This is assured in that the spots are located along the nerves courses in some cases of Vitiligo.

There is also the theory of destroying the self-blackish cells because of natural lack of immunity. [10]

Results and discussion:

- 1- Muslim Arab scientists differentiated between Vitiligo and leprosy, unlike their predecessors who combined both diseases in one. Abu Al-Hasan differentiated between both diseases with respect to look, appearance, and treatment. IbnSina differentiated between the two with respect to the colour of growing hair. Al-Zahrawi differentiated between the two in relation to blood decomposition in the body skin, and he combined between the treatment of white Vitiligo and leprosy. However, he noted that treating white Vitiligo is easier and it is half the suffering.
- 2- Al-Zahrawi classified Vitiligo into three types, but IbnSina, Al-Tabari and Al-Razi did not classify Vitiligo into types. Al-Tabari mentioned that Galenus differentiated between black and white Vitiligo.
- 3- Al-Tabari elaborated on describing Vitiligo and its treatment. He assigned a complete chapter, which is the tenth one in his seventh article in his book *HippocratesTreatments*.

Conclusion:

Vitiligo has been known since times of old. The cultures that tackled such a disease were many. Besides, Muslim scientists contributed to the diagnosis and treatment of such a disease.

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