UNANI PERSPECTIVE OF QILLAT E MANI (OLIGOSPERMIA)

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Abstract

Infertility is a disease of the reproductive system defined by the failure to achieve a clinical pregnancy after 12 months or more of regular unprotected sexual intercourse. A male factor contributes to infertility in approximately 50% of couples who fail to conceive, causing significant psychosocial and marital stress. Oligospermia is a decrease in semen below 15 million sperm per milliliter (WHO). Furthermore, oligospermia is a defect in sperm production and may be due to surgically treatable causes like varicocele, exposure to thermal or chemical environmental factors suppressing spermatogenesis, hormonal factors, intrinsic testicular defect or idiopathic. It is responsible for 90% of male infertility. In Unani system of medicine, infertility is termed as ‘Uqr’ which occurs due to defect in male Mani (sperm) or female Mani (ovum) or male and female reproductive organs. In the classical Unani literature, the semen deformities are mentioned under the caption of Qillat-e-Mani and Riqqat-e-Mani. The term ‘Qillat’ means deficiency, ‘Mani’ means semen and ‘Riqqat’ means fluidity. Both this Qillat and Riqqat-e-Mani is mainly responsible for sexual disorders like Zof-e-Bah (Sexual dysfunction), Surat-e-Anzal (Premature ejaculation), Ehtelam (Nocturnal emission), Uqr (Infertility), Jiryan (Spermatorrhoea) etc. In Unani system of medicine, the general term of Muqawwi-e-Bah is used commonly in the management of semen and semen related problems. Decreased quantity of Huwain-e-Manvia (spermatozoa) in Mani (seminal fluid) is called Qillat-e-Mani or Qillat-e-Huwain-e-Manvia. The modern term equivalent for Qillat-e-Mani or Qillat-e-Huwain-e-Manvia is Oligospermia. Unani physicians have been treating not only for improving numbers of spermatozoa but also for other defects of spermatozoa. The causes, aetio-pathogenesis, clinical presentation, line of treatment and management for Qillat-e-Mani have been discussed in detail in almost all the classical Unani text books. This study was aimed to review the concept of Qillat-e-Mani (oligospermia) in the perspective of Unani system of medicine.
INTRODUCTION

Infertility is a disease of the reproductive system defined by the failure to achieve a clinical pregnancy after 12 months or more of regular unprotected sexual intercourse.\(^1\) A male factor contributes to infertility in approximately 50% of couples who fail to conceive, causing significant psychosocial and marital stress.\(^2\) Oligospermia is a decrease in semen below 15 million sperm per milliliter (WHO). Furthermore, oligospermia is a defect in sperm production and may be due to surgically treatable causes like varicocele, exposure to thermal or chemical environmental factors suppressing spermatogenesis, hormonal factors, intrinsic testicular defect or idiopathic.\(^3\) It is responsible for 90% of male infertility.

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RESULTS

Concept of Al-Umur-al-Tabai’yah (Principles of human physiology).

According Unani system of medicine the human body is considered to be composed of following seven natural principles or components of the body known as Al-Umur-al-Tabi’yah (Principles of human physiology). Al-Umur-al-Tabi’yah is a term derived from the word tabi’at (physis-nature). Tabi’at which is also known as Al-Tabi’at-al-Mudabbir-lil-badan is considered the supreme planner of our body. These are the factors responsible for the existence of the human body and maintenance of health.\(^6\) These are as follows,

1. Arkan (Elements)
2. Mizaj (Temperament)
3. Akhlat (Humours)
4. A’za’ (organs or members)
5. Arwah (Pneuma or vital spirit)
6. Quwwa (faculties or powers)
7. Afal (functions)
Each cell, tissue, organ and the entire body is bestowed upon with a power "Tabiyat" which maintains the Etedal Mizaj (Homeostasis) through various controlling systems and mechanisms for the preservation of an individual as well as the species which operate under Quwwa Tabaiya, Quwwa Haiwaniya and Quwwa Nafsaniya. Some of these mechanisms operate within the cells to control intracellular functions others operate within the organs, while others operate through the entire body to control the inter relationship between different organs.

Concept of Quwwa (faculties or powers)
The concept of Quwwa is a unique to the Unani system of medicine and Quwwa is considered as one of the seven essential principles called Al-Umur-al-Tabi'yah, which are essential for the normal functioning of life of an individual.

Quwwa (faculties) is defined as those that are natural and specialized powers, which are furnished to a living body for the performance of its specific functions, and which helps the organs of the body that are responsible for the preservation of the individual as well as species.6

There are three major Quwwa in the body
1. Quwwat-e-Tabaiya (Natural faculty)
2. Quwwat-e-Nafsaniya (Psychic or Mental faculty)
3. Quwwat-e-Haiwaniya (Vital or Physical faculty)

Concept of Al-Quwwa-al-Tanasuliyah:
As the Quwwat-e-Tabaiya (Natural faculty) consist of Quwwat-e-Taulidiya-Tanasuliyah (Reproductive faculty) it acts primarily to generate new individual of a species by the supporting its subordinate faculties.

Jalinoos treats Quwwat-e-Tanasuliyah as a separate (fourth) faculty as it differs from Quwwat-e-Tabaiya (Natural faculty) by its origin and its function.7

In the meantime, Ibn Nafis believes, Quwwat-e-Tanasuliyah is a kind of Quwwat-e-Tabaiya which acts on food and maintain proper Hazim which lead to the preservation of the species through semen production. Hence, this faculty is responsible for the generation of Mani (Semen) and formation of Janeen (Foetus) which ensures the propagation and preservation of the species to replace what is lost through the death of its members.

Quwwat-e-Tanasuliyah has been classified on the basis of its functions
1. Quwwat-e-Muwallidah (Generative faculty)
2. Quwwat-e-Musawirah (Formative faculty)
1. **Al-Quwwa-al-Muwallidah (Generative faculty):**

According to Ibn Nafiz, Al-Quwwa-al-Muwallidah is that Quwwa which separates the essence of Mani (semen) i.e. Sperm or ovum from Imshaj-e-Badan (Components of the body) inside the testis (and ovary) and makes each of its part to become a particular organ. Ibn Sina is of the opinion that Quwat-e-Muwallidah is of two kinds: one kind is that which generates Mani (sperm and ovum) in the males and females, respectively and the other one is that which gives different combinations to different potentialities of the Mani (semen and ovum), according to future organs. Thus, the Quwwa (faculty) controls spermatogenesis in males; oogenesis, ovulation and formation of corpus luteum in female, and also the process of menstruation in females, with the help of different Akhlath Muharrrikah (hormones) etc. This Quwwa also determines the different potentialities (Genes) and their arrangement in the chromosomes of the sperm and ovum to transfer the hereditary characters of the parents of the offspring; and the type of chromosomes are also determining by this faculty to determine the sex of the offspring.

While, Ibn Sina is of the opinion that Quwwat-e-Muwallida (Generative faculty) is of two kinds as given below:

- **a. Quwwat-e-Muhasilah (Collective faculty):**
  This faculty generates the Mani (Semen) and puts all the Khawas (characters) of an individual into the Mani. The characters are collected from all over the body of that particular individual.

- **b. Quwwat-e-Muffassilah (Differentiate faculty) or Quwwat-e-Mughairah-e-Ula (Primary transformative faculty):**
  This faculty gives different combinations of different potentialities to the Mani according to the A'za’ and Mizaj (Temperament) of that A'za’ (organs) which is to be formed.

2. **Al-Quwwa-Al-Musawirah (Formative faculty):**

According to Ibn Nafis the other Quwwa (faculty) is that which gives that shape to each part of Mani (sperm and ovum) which is required by that particular species to which this Mani (sperm and ovum) belongs, or any other shape close to that particular individual. Giving of shape means it produces lines in the organs, forms cavities and depressions, and performs other functions. This quwwa is known as Al-Quwwa-al-Musawirah (formative faculty). Ibn Sina says the formative faculty is that whereby, delineation and configuration of the organs is produced with their cavities, foramina, positions and relations to one another their smoothness or roughness, ensures the external physical characteristics of the body i.e. colour, hair, height, and face figure etc. according to the concerned species and race. Thus this faculty gives the shape to each part of the Mani (Semen) which is possessed by that particular species. Ali Abbas is also of the same opinion.

The proper function of Quwwat-e-Tanasuliya (Reproductive power) is necessary for healthy sexual life. Therefore, the deep knowledge on origin and functions of Quwwat-e-Tanasuliya is important to identify the problems of sexual disorders.
When a male attains the age of puberty, with the maturation of gonads, one of the subordinate Quwwa of the Quwwat-e-Tanasuliya i.e. Quwwat-e-Muwallida (Generative faculty) begins its all functions. As a result, the vital organ (A’za-e-Ra’eesa) begins the synthesis of semen, which will generally lead to the Ehtelam (Involuntary semen discharge), and feeling of pleasure in males at the age of puberty.

All these functions are smoothly supervised and coordinated by the Tabi’at (Nature). Hence, Quwwat-e-Taulidiya (Reproductive faculty) remains active throughout the life in male.

Therefore, it is obvious that Quwwat-e-Tanasuliya (Reproductive faculty) is the most important Quwwa for the generation of the individual while rests of the subordinate Quwwa preserve the healthy life.

**Concept of Mani (Semen)**

Ancient Greek and Arab physicians had gained deep knowledge on Jauhar-e-Mani (sperm) through their skills and experiences. They believed that there was a living agent present in the Mani (semen) and treated it as treasures it carries the live. Although they were equipped with lack of technology, they had clear idea about the functions of semen. Number of philosophers has commented about the synthesis of sperm. Among them Buqrat has clearly mentioned that semen is as an excessive product at the 4th stage of Hazim (digestion). As Mani (semen) was considered as a liquid, Unani philosophers believed that Mani was an important part of Akhlath-e-Badan (humours of the body). Qarshi, one of the great Unani physicians believe that Jauhar-e-mani (sperm) is separated from Imshaj-e-Badan (body components) which is actually the Akhlat-e-Badan (humours in the body).

Hakeem Jurjani in his book Zakheerah Khwarzam Shahi has further supported this view where he has said that Quwwat-e-Muwallida (Generative faculty) separate the Mani from the Akhlat-e-Badan at the 4th stage of Hazim. Ibn Sina has also followed the same view in his treatise.

Mani (semen) has two components

1. **Jauhar-e-Mani** (Sperm), the main reproductive agent, formed by Quwwat e Muwallida (Generative faculty) inside the Khusyatain (Testis), which may be the solid nature sperm, formed in testis as main reproductive agent.

2. **Rutubat-e-Manvia** (Seminal Plasma) contains Ghiza (Nutrition) for Jauhar-e-Mani. This Rutubat is formed by the Quwwat-e-Tabaiya with the association of Quwwat-e-Ghazia (Faculty of assimilation) during the Hazim-e-Uzuwi (Cellular metabolism) inside the Khusyatain (Testis).

All types Of Quwwat-e-Tabaiya (Natural power), including Quwwat-e-Muwallid (generative faculty) originate in liver and through Urooq (Vessels) as per Ali Abbas view. Hence, Ali Abbas believed that liver synthesizes
the formation of Rutubat-Manvia (Seminal fluid) and its contents such as carbohydrates and proteins. However, Ali Abbas has noted the collaboration between the Quwwat-tanasuliya (natural faculty).

Semen contains Jauhar-Mani and Rutubat-Manvia. When there is no Jauhar-Mani in the semen then it becomes infertile (Azoospermia). Meanwhile the Rutubut-Manvia (Seminal fluids) is necessary for the nourishment of Jauhar-Mani. Hence, Jauhar-Mani cannot survive without the Rutubat-Manvia. Quwwat-Tabaiya is also essential for the survival of Jauhar-Mani because Rutubat-Manvia formed by Quwwat-Tabaiya.

Amraz-e-Mani vo Aalat-e-Mani (Disorders of semen and testis)

The disorders of semen and testis are also one of the leading causes in Infertility. They include the followings:

1. Qillat-e-Mani (Seminal disorders): The temperamental changes in semen i.e. increase in Hararat vo Yaboosat (Hotness and Dryness) or Buroodat vo Yaboosat (Cold and Dryness) may produce Qillat-e-Mani.
2. Riqqat-e-Mani (Decreased viscosity of semen): Extreme increase in Hiddat vo Hararat-e-Mani (Sharpness and hotness of the sperm)
3. Soo e mizaj e Mani Aalat e mani: The change in temperament of generative organs of semen. singly Garam (Hot) or associated with Yaboosat (Dryness)

Asbab-e-Qillat-e-Mani (Causes of Oligospermia)

Many Unani physicians have discussed the Asbab-e-Qillat-e-Mani in numerous Unani classical texts in deep because they have identified Qillat-e-Mani (Seminal disorders) as the leading cause for the infertility among men.

Asbab-e-Qillat-e-Mani according to Hippocrates

- Excessive coitus
- Masturbation
- Excessive strain
- Stress
- Environmental factors:
  - Malnutrition
  - Excessive conception of narcotics
  - Toxin
Asbab-e-Qillat-e-Mani according to Ali Ibn Sina

- Obesity
- Improper digestion
- Zof-e-Badan (weakness of body)
- Zof-e-A’za-e-Ra’eesa (weakness of vital organs)
- Soo-e-Mizaj

In Unani system of medicine, the general term of Muqawwi e bah is used commonly in the management of semen related problems.

DISCUSSION AND CONCLUSION

The Unani system of medicine is one of the evidenced based scientific systems with holistic approach deals with the male infertility (Uqr-e-Mardana). The deficiency of seminal fluid (Naqs-e-Mani) either in Kammiyat (quantity) or Kaifiyat (quality) and its management with Muqawwi-e-Bah (Aphrodisiac) drugs have been discussed in many Unani classical texts since the time immemorial. Decreased quantity of Huwain-e-Manvia (spermatozoa) in Mani (seminal fluid) is called Qillat-e-Mani or Qillat-e-Huwain-e-Manvia. The modern term equivalent for Qillat-e-Mani or Qillat-e-Huwain-e-Manvia is Oligospermia. Unani physicians have been treating not only for improving numbers of spermatozoa but also for other defects of spermatozoa with the medicines or foods which improve the quality and quantity of semen are termed as Mawallid-e-mani and Mughalliz-e-mani. By reviewing the literature, it is evident that the causes, aetio-pathogenesis, clinical presentation, line of treatment and management for Qillat-e-Mani have been discussed in detail in almost all the classical Unani text books.

REFERENCES

3. Sexual and Reproductive Health and Research (SRH), including the Human Reproduction Programme (HRP).


