

Review Article

Clinical Management of Oligogalactia with Unani Formulation

Yasmeen Ansari¹, Abdul Raheem², Tamanna Nazli³, Farha Ahmad⁴, Danish K Chishti⁵

¹Research Officer (Unani) Unani Medical Centre, RML Hospital, New Delhi, India.

²Research Officer Scientist IV, Incharge, Unani Medical Centre, Dr RML Hospital, New Delhi, India.

³Research Officer, Unani Medical Centre, Safdarjang Hospital, New Delhi, India.

⁴Research Officer Scientist II, CCRUM headquarter New Delhi, India.

⁵Assistant Professor, State Unani Medical College, Prayagraj, UP, India.

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Corresponding Author:

Yasmeen Ansari, Research Officer (Unani) Unani Medical Centre, RML Hospital, New Delhi, India.

E-mail Id:

dryasmeenansari2000@gmail.com

Orcid Id:

<https://orcid.org/0009-0009-7832-3954>

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A B S T R A C T

Qillat-e-laban, a condition characterised by insufficient milk production in lactating mothers, occurs when the amount of milk is too scanty to meet the needs of the infant. In India, the prevalence of oligogalactia ranges from 45.0% to 53.6%, and this issue is currently on the rise, raising concerns in public health. The early cessation of breastfeeding and the introduction of breast milk substitutes pose a significant risk of morbidity and mortality among infants. While certain medications, such as metoclopramide and domperidone, can boost lactation by increasing prolactin levels, they are not frequently recommended due to limited effectiveness and significant safety concerns. Literature suggests that these medications should not be regularly used to enhance lactation, as the suckling infant may experience side effects like loose motions, dystonia, and myoclonus. The Unani system of medicine asserts the presence of various drugs that can address the issue of scanty milk production without causing adverse effects on both the mother and child.

Keywords: Oligogalactia, Breastfeeding, Qillat-e-Laban, Lactation

Introduction

Qillat-e-laban is mentioned briefly by Ibn Sina (980-1037AD) in the Cannon of Medicine under the chapter of 'Upbringing of Children' in which he mentioned that when milk is scanty the cause should be ruled out.¹ Babies who are not breastfed or introduced to solid foods too early may face an elevated risk of various health issues, including obesity, diarrhoea, gastrointestinal problems, respiratory and ear infections, urinary tract infections, bacterial meningitis, botulism, necrotising enterocolitis, and allergic skin disorders. Research indicates that non-breastfed infants are fourteen

times more likely to succumb to diarrhoea, three times more likely to die from respiratory infections, and twice as likely to die from other infections compared to exclusively breastfed children.²

India is grappling with a serious challenge, marked by a high rate of child undernutrition and mortality. Addressing this issue requires an urgent and comprehensive, evidence-based strategy.^{3,4} Over 2.4 million child deaths occur in India annually, with two-thirds of these attributed to inappropriate infant feeding practices, according to Lancet child survival data. The promotion of exclusive breastfeeding in the first six months is identified as the single most effective

intervention, capable of reducing mortality by 13–15% in children under five years of age.⁵

Despite advancements in medical knowledge, the underlying causes of oligogalactia, a condition characterised by insufficient milk production, still remain unclear. Several socioeconomic, cultural, biological, and infant feeding-related factors have been proposed as potential risk factors for it.⁶ As far as the Unani system of medicine is concerned, Ibn Sina has described that Qillat-e-laban develops either due to the dominance of heat in breast requirement or the sui-mizaj (ill temperament).⁷

Breastfeeding is an instinctive process, and for many mothers, it comes naturally. The significance of breast milk, particularly in developing countries like India, cannot be overstated.⁸ However, even with this inherent process, mothers may encounter challenges, prompting them to easily switch to top/ supplementary feedings at the slightest issue. Mothers often perceive that they have insufficient milk, and various physical, emotional, and logistical obstacles can hinder the breastfeeding experience.⁹ Even minor concerns about milk supply can contribute to lactation failure. It is crucial for mothers to receive adequate breastfeeding support, as the lack thereof can further exacerbate the risk of lactation failure.^{10,11}

Moreover, it is an established fact that poor nutrition of the mother can lead to poor growth and development of the foetus and an insufficient quantity of milk.

It is a challenging problem for the physician to treat. There is a scarcity of effective and safe galactagogue drugs in the conventional system of medicine. The Conventional system of medicine seems to be handicapped in the proper management of Qillat-e-laban.

We need more effective and safe medicine which can be used successfully to manage the problem. Unani system of medicine claims to possess a number of such drugs which can be used to improve the condition of scanty milk production. Such drugs are not only mentioned in the Unani literature with necessary details but have been used by Unani physicians since ancient times and have been reported by them to be effective.

Definition

Nature has inherently designed infants to be nourished with their mother's milk, as mentioned in the Holy Quran, "the mother shall suckle to their offspring for two whole years". Both medical and public health experts strongly advocate breastfeeding as the optimal method of feeding for young infants, citing numerous reasons. Human milk, with its anti-infective properties, is a live fluid that cannot be replicated by even the most sophisticated and carefully crafted formulas.¹² Human breast milk, when adequately supplied, is known to fulfil virtually all the nutritional requirements

of an infant, especially in the first six months of life. The World Health Organization (WHO) and UNICEF emphasise the crucial importance of breast milk for neonates. More than one million infants worldwide perish each year due to the absence of breastfeeding or premature introduction of other foods.¹³ Many others suffer from preventable diseases and malnutrition, with a greater impact in the developing world. Even in the United States, a culture of formula feeding has shown adverse effects on thousands of infants. Throughout history, there have been varying phases of popularity and decline in the practice of breastfeeding.¹⁴

Razi (852) described that Qilat-e-laban is caused by an alteration in the quality of blood which can be because of Qilat-e-Dam, Ghalba-e-Safra, or Balgham.¹⁵ Abbas Majoosi (930-994) described that in the production of milk secondary faculties simply serve the nutritive one of the breast.¹⁶ Jurjani (1042–1136) was of the opinion that Qilat-e-laban is caused by Sue Mizaj Sada or Maddi of Badan or pistan.¹⁷

Sina (980–1037) mentioned prenatal and postnatal care, delivery, newborn baby care, milk feeding and how to choose the suitable wet nurse. In the first book, he devoted a special part to talking about bringing up children and their diseases. This part consists of four chapters: the first chapter is for the management of the newborn until the walking age. In the second chapter, he wrote about the milk feeding.¹⁸ He also discussed the enlargement of the breast and the change of colour in the areola during pregnancy.¹⁸

Classification

Primary Oligogalactia

Although most mothers are capable of breastfeeding successfully, as many as 5% of women may give primary insufficient lactation because of anatomic breast variation or medical illness that makes them unable to produce a full milk supply despite heroic efforts.

This condition is associated with retained placenta, inadequate mammary glandular tissue, reduction breast surgery, augmentation mammoplasty, periareolar incision, breast radiation, excisional biopsy, breast abscess and other breast surgery. Additional causes of primary oligogalactia include severe maternal illness such as post-partum haemorrhage with Sheen's syndrome, infection, or hypertension.

Secondary Oligogalactia

A normally established milk supply can quickly diminish when faced with challenges in maternal or infant breastfeeding, disrupting the regular and effective removal of milk—essentially, the failure of an infant to consume adequate milk. This scenario, known as secondary oligogalactia, is less common than primary oligogalactia, and it is

potentially preventable and remediable if identified early. Inappropriate infant feeding practices, such as ineffective or incomplete removal of milk, often lead to diminished production and contribute to secondary oligogalactia. Various situations, including maternal employment or schooling, hospitalisation of either the mother or infant and maternal travel resulting in infrequent or incomplete breast emptying, can contribute to the separation of breastfeeding mothers from their infants, exacerbating the problem. Furthermore, an initially normal milk supply may also decrease when mothers take oral contraceptives containing oestrogen or conceive while lactating due to the inhibitory effects of pregnancy hormones on lactation. Identifying and addressing these factors early on can help prevent and mitigate secondary oligogalactia.

Aetiology and Diagnosis

If the cause is an abnormally hot temperament, it would be known from the signs and symptoms. When milk is scanty due to excessive heat in the breast, it can be felt on palpation. Abnormal heat in the temperament should be treated with a cool diet consisting of barley water and spinach. If there are signs of cold temperament, obstruction or inadequate absorption will be present. In this case, the diet should consist of light and slightly hot food. Gentle cupping is also given under the breast.

Anaemia: As milk is delivered from the blood, a lack or deficiency of blood in the body results in scanty milk secretion in lactating mothers.

Kasrat-ud-Dam: Due to increased blood volume, Tabiyat cannot digest and convert, sometimes due to an imbalance in constituents of blood, milk becomes inadequate.

Muta'di Asbab: Tuberculosis, syphilis, typhoid etc.

Organic Cause: Obstruction in the duct, malformation of glands

Deficiency: It may be due to a deficiency of endocrinal hormones, deficiency of vitamins A and D, iron deficiency, or protein deficiency. Milk production decreases in lactating mothers evidenced by the dissatisfaction of the baby. Baby tries to suckle frequently but due to an inadequate supply of milk, baby cries after feeding and becomes weak and cachexia.

Unani Concept

The Unani system of medicine, as described by Ibn Sina, outlines the concept of breast milk formation through the lens of four secondary faculties serving the nutritive function of the breast. These faculties include Quwwat-Jazeba (absorptive faculty), Quwwat-e Maseka (retentive faculty), Quwwat-e Hazma (digestive faculty), and Quwwat-e-Dafea (expulsive faculty).

The absorptive faculty (Quwwat-e-Jazeba) is designed to attract beneficial elements from the blood. The retentive faculty (Quwwat-e Maseka) retains these nutrients until the alterative faculty (Quwwat-e Mughaiyara) acts upon them, extracting nutrition. The digestive faculty (Quwwat-e-Hazema) absorbs materials drawn by the attractive faculty, transforming them into a consistency suitable for the action of the alterative faculty and converting them into a temperament capable of becoming actual nutriment, i.e., breast milk.

The secretion and discharge of breast milk are facilitated by the expulsive faculty (Quwwat-e Dafea), particularly triggered by suckling stimuli after the delivery of the baby. Lactation is an ongoing process as long as milk is regularly removed from the gland. The placenta plays a crucial role in initiating the letdown reflex, allowing the infant to extract milk from the gland. The volume of secreted milk can be adjusted to the infant's requirements by a local factor known as the "feedback inhibitor of lactation". This intricate system illustrates the Unani perspective on the physiological aspects of breast milk production and secretion.

Usool-e-Ilaj

For the production of milk, there should be a normal blood supply to the breast. Quwat-e-jazeba and Hazema (absorptive and digestive faculty) of the breast should be normal. Disturbance in these faculties results in Qillat-ul-laban. So according to the underlying cause, one should manage the condition. In the case of Zof-e-Quwwat-e Masika, the use of milk-retentive drugs and measures is preferred. An equilibrium is maintained in Mizaj. In the case of a lack of blood, a diet which helps in blood production is advised. If the cause is excessive elimination of body fluids (Kasrate-istafragh), it should be prevented or stopped. Treatment should be given for Tanqiya of khilt-e-Galib (dominant humor). Ideas should be implemented to bond mother and baby in a pleasant environment. Strengthening of Quwwat-e Mudabaira-e Badan is advised.

Management

The main principle of treatment in the Unani system of medicine includes Ilaj-bil-Ghiza, Ilaj-bit-Tadbeer and Ilaj-bid-Dawa.

Dietotherapy (Ilaj-bil-Ghiza)

A diet which is light easily digestible, nutritive, oily, hot, and moist temperament should be advised. According to Hakeem Khan, only a balanced and nutritious diet (without any drugs) is sufficient to treat oligogalactia, such as milk, butter, clarified butter, rice, chicken, honey, hen's egg (in the form of soup), halwa, fruits, hodgepodge made with rice and yellow lentil, yellow split pigeon pea lentils, lady finger, ridge gourd, pumpkin, round Indian gourd, spinach etc.¹⁹

Regimental Therapy (Ilaj-bit-Tadbeer)

If there are signs of cold temperament gentle cupping is given under the breast, in case of Fasad-e-khoon rectification (blood purification) or venesection is to be done, in case of obstruction of blood vessels of the breast, nutool (it is a novel method in which water, oil or medicated decoction is poured from a height over a specific part which also enhances the local absorption of medicine) is given.

Pharmacotherapy (Ilaj-bid-Dawa)

According to most Unani physicians, the drugs which are Mualid-e-Mani also possess Mualid-e-Sheer properties. A large number of drugs either single or compound formulations have been mentioned in the context of treatment oligogalactia.

Single Drugs²⁰

Pambadana (*Gossypium herbaceum*), Asgand Nagori (*Withania somnifera*), Satawar (*Asparagus racemosus*), Inderjo Sheerin (*Wrightia tinctoria*), Toodri Surkh (*Cheirantus cheiri*), MusliSafed (*Chlorophytum borivillianum*), ZeeraSafed (*Cuminum cyminum*), Tukhm-e-Kahu (*Lactuca sativa*), Talamakhana (*Asteracanta longifolia*), Shaqaql Misri (*Pastinaca sativa*), Aspand (*Peganum hermala*), Akhrot (*Jugulans regia*), Badam (*Prunus amygdalus*), Bozidan (*Pyrethrum indicum*).

Compound Formulation

Habb-e-Asgand, Majoon Suhag Sonth, Majoon Mochras, Majoon Musli Pak, Majoon Pambadana, Majoon Salab, Majoon Regmahi, Labub Kalan, Labub Kabir, Labub Saghir, Labub Motadil, Jawarish Kamooni, Jawarish Mastagi, Kushta Gaodanti, Safuf Salab, etc.

Conclusion

Mothers often feel that they have scanty milk production, and failing to receive crucial breastfeeding support eventually develops lactation failure. Western countries have realised the immense value of breast milk and widespread support has resulted in a rising trend of breastfeeding. The prevalence of Qillat-ul-laban in India is 45% to 53.4% and is increasing nowadays. It is a challenging problem to treat. Keeping this fact in mind a high prevalence and challenging problem we needed more effective and safe medicine which should be used successfully to manage the problem. Unani system of medicine claims to possess a number of medicines, which can be used to improve the condition of scanty milk production. Qillat-ul-laban (oligogalactia) is a problem of lactating mothers which has been treated successfully for centuries by Unani physicians. The Unani system of medicine plays an important role in treating and preventing diseases.

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