

Role Of Hifz-e-Mataqddum (Measures For Disease Prevention) in the Management of Neonatal Scabies During the Era of Covid 19: A Case Report

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Abstract

The pandemic COVID-19 has compelled telemedicine into an essential healthcare delivery system worldwide. One such case of neonatal scabies was recorded by us through telephone during the absolute lockdown. Jarb (Scabies) is a prevalent disease across the world and a major public health concern in many developing countries, primarily related to poverty and overcrowding. Neonatal scabies may be easily misdiagnosed as it has a distinct clinical pattern, or the clinical manifestations are different from pathognomic lesions as compared to adult age. The paper will discuss how a case was being diagnosed and what measures were taken to manage neonatal scabies via teleconsultation.

Keywords: Telehealth • Teleconsultation • Neonatal scabies • Jarb • Hifze mataqaddum

Introduction

Telemedicine, a term coined in the 1970s, with a literal meaning of "healing at a distance". It indicates the use of ICT for improving patient outcomes through an increase in access to healthcare and medical information[1]. It has been recognized that there is not a single absolute definition of telemedicine. As per a study in 2007, there are 104 peer-reviewed definitions of the word 'telemedicine the World Health Organization has implemented the following broad description: [2].

"The delivery of health care services, where distance is a critical factor, by all health care professionals using information and communication technologies for the exchange of valid information for the diagnosis, treatment and prevention of disease and injuries, research and evaluation, and for the continuing education of health care providers, all in the interests of advancing the health of individuals and their communities" [3].

The several definitions delineate telemedicine as an open and constantly evolving science, as it incorporates new technological advancements and retorts and acclimatizes to the changing health needs and perspectives of societies. Some differentiate telemedicine from telehealth with the former limited to services rendered by physicians only, and the latter indicating services delivered by health professionals in general, which may include nursing staff, pharmacists, etc. Though, for the practical purpose, telemedicine and telehealth are synonymous and mostly used interchangeably. Scabies is a contagious disease more common in low socioeconomic groups, who have poor personal hygiene, more so in children. The agent is *Sarcoptes scabiei*. Many environmental

and social factors such as maximum incidence in the winter season, overcrowding, low socioeconomic living style, and limited availability of water for washing play important role in the spread of this disease. Maximum incidence is found in school-going children but occurs at all ages due to poor personal hygiene [4]. The prevalence of scabies decrease with increasing age. Sometimes the disease spreads with a cyclical pattern with a gap of about 13 years-15 years. Intimate contact from skin to skin is believed to be the main possibility of transmission. Contact for 20 minutes or even less may allow the mite to transfer. The infection spreads through the patients who are already infected and their other belongings such as clothes, linen, towel, etc [5,6].

Neonatal scabies is a rare condition. Mode of transmission includes patient's direct contact and touching the fomites. The infection remains in the cases for a longer period up to 4 weeks-6 weeks if left untreated. After effective treatment for consecutive three days makes the patient becomes non-infective. The secondary attack rate in children is about 80% and in adults, it is about 30% [7].

Clinical features include severe itching, which is worse at night common with other family members burrow is the greyish, serpentine, dotted line on the skin which represents the tunnel made by the female mite site of the burrow, interdigital folds, flexor aspects of the wrist, anterior axillary folds, umbilicus, etc. Hakeem Mohd Azam Khan an Unani Physician of India describes Jarab as wet itching with red color small vesicle and happens in the finger of Hands and legs and sometimes spread to all parts of the body. He further says that this is an infectious (Mutaddi) disease and transfers from one person to the other person and the itching increase at night. It may become epidemic if the air of a city is bad in quality the purified blood is liable for this malady. He described it as Fasad-e-jild caused by Fasad-e-dam purification of blood and emphasized taking a restricted diet and avoiding hot temperament spices as far as treatment is concerned he advised blood purifiers and evacuation of Sauda (black bile) & yellow bile, followed by local application of ointments. The Author of Akseer Azam also supports the theory of Akhlat (humor) and its purification in skin allergies and advocates the same treatment [8,9].

Usool-E-Ilaaj (principles of treatment) for the management of scabies (jarb) in Unani Medicine includes Izala-E-Sabab (treat the cause), Tanqiya-E-Khilt-E-Fasida (for evacuation of morbid humor), musaffiyat wa Moadelat-E-Dam (blood purifier and modulator), Mana-E-Ufoonat-E-Jild (anti-infective), musakkinat-e-jild (sedative to the skin) [10-13].

Hifz ma Taqaddam (Measures for disease prevention) as per the Unani fundamentals, due emphasis is given on the preventive aspect. There are four levels of prevention of disease and promotion of health.

Hifz ma Taqaddam is applied to 'at a risk population'. The context here encompasses the dependence of an individual on his/her temperament in predisposing towards illness conditions. As per the Unani concept, predisposition to disease increases either due to the Imtila'i Kaifiyat (congestion state) in the body or due to the presence of Khaam Madda (incomplete maturation of humor) [14]. Causes for imtila' may be intrinsic or extrinsic. Extrinsic causes are overeating and a sedentary lifestyle, while intrinsic causes are hypo-activeness of nutritive and expulsive faculties, hyper-activeness of retentive faculty, and constriction of vessels [15].

Hifz-ma-Taqaddam is that level of prevention where the aim is the protection of susceptible populations to reduce the incidence of disease.

- To recognize the prodromal symptoms.
- Start preventive care at this stage to prevent full-blown disease.

The actions required for Hifz-ma-Taqaddam include the Evacuation of morbid humor by adopting appropriate measures depending on the dominance of humor. And the use of prophylactic drugs. The target population for the approach of Hifz-ma-Taqaddam is the Susceptible



Figure 1. Photograph of the neonate showing pustular lesions before treatment.



Figure 2. Photographs of the neonate after treatment.

population or individual and otherwise healthy individuals with the presence of some prodromal symptoms of the diseases. Identification of the incipient stage of disease through its precursors and starting preventive care at this stage of disease will halt its progression further [14-17].

Hifz E Mataqaddum (preventive measures) in case of scabies, including bathing and cleaning lesions, washing clothing, and towels, cleaning bedding, and all belongings of the patient, avoiding hot, salty, viscid, and sweet foodstuffs, and the local application of the sulfur compound.

Prevention guidelines for scabies in children

A healthcare professional must diagnose the type of scabies, and the degree of skin exposure, and decide the method of treatment for the baby. Points to remember include:

- Scabies spread through close physical contact with an infected person.
- If scabies is left untreated, it may get worse, the infant may suffer longer and infection may involve more skin.
- Scabies infestation may be easily spread from the infant to other family members.
- Scabies mites remain infectious even after two days on the clothes and beddings of the baby.
- Treating scabies is the only way to get rid of the mites burrowing under

the skin. It will not simply go away if ignored. Ensure that your baby is brought to the doctor as soon as you see the skin rash.

Case presentation

A 20-day-old neonate was reported to us with the complaint of pus-filled rashes over the face and flexor side of the elbows. On examination small, pustules were present. The lesions appeared on the face and arms. The lesions were pustular in appearance. Despite providing treatment for 3 consecutive days, the skin lesions did not improve, rather, new lesions appeared ((Figure 1). The case was consulted telephonically and based on a careful history; we established the diagnosis of scabies. As per the statement of the baby's attendant, a family history of similar itching was positive. He was treated with topical 5% permethrin cream along with the measures of Hifze Mataqaddum were also explained to them. Substantially after 3 weeks, the lesions subsided without relapse. Informed consent was obtained for the publication of the case report along with photographs from the person concerned ((Figure 2).

Discussion

Scabies is among the highly prevalent dermatological conditions that account for a considerable percentage of skin ailments in developing countries. Scabies is endemic in many tropical countries, with an estimated average prevalence of 5%–10% in children. Scabies is

characterized by recurrent infestations. Neonatal scabies is a unique subset with a typical presentation. The appearance of lesions and areas involved are different from classical scabies. Papules, pustules, and vesicles may appear, i.e. lesions are pleomorphic. Crust formation or even secondary bacterial infection may also be seen. In the case of neonatal scabies excoriations and burrows are rare to appear. Pruritis may not be exhibited. During active scabies infestation, neonates become fussy with poor feeding and hence, could not gain weight. The dermatologist confirmed the diagnosis. The differential diagnosis of scabies should be kept in mind when a neonate presents with severe pruritic, and polymorphic skin lesions. In the case presented, the distribution of the lesions involved the face and arms. The lesions were pustular in appearance. The case was consulted telephonically and based on a careful history, we established the diagnosis of scabies. The case was treated with topical 5% permethrin cream along with the measures of hifze mataqaddum were also explained to them. Substantially, the lesions subsided after 3 weeks without relapse.

Conclusion

Proper eradication of scabies infestation requires adherence to therapeutic guidelines. All household contacts and involved healthcare workers and their families must be treated simultaneously, regardless of symptoms. Furthermore, fomites should be decontaminated (by washing clothing and linens in soap and hot water, for example, or dry-cleaning or placing these items in a closed container for 5 days to 7 days). Clean clothing should be worn after treatment. 19 Unani medicines focus on treating the root cause of the disease using therapies with low side effects and considering nutrition and lifestyle modification in patients that can help with chronic skin diseases by reducing the symptoms and long disease-free period. Thorough and complete guidelines for the promotion of health for vulnerable groups have been provided. According to the World Health Organization's approach to increasing the usage of traditional medicines in the treatment of diseases, further research is necessary in this area. Unani medicine considers a holistic approach to the management of ailments. i.e. regimes and treatment for the overall well-being of the sick.

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