



# Therapeutic Effect of a Herbal Paste in the Management of *Bardah* (Chalazion) - A Case Study

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**Abstract:** *Bardah* is an accumulation of *Ghaleez Balgham* (thick phlegm) in the meibomian glands of the eye lid causes impaired function that produces swelling, pain and heaviness on the site of the gland. In modern, this condition can be correlated with chalazion, which is one of the commonest type of eyelid lesions seen in the ophthalmology clinic. Pathologically, it is a chronic granulomatous inflammatory lesion caused by the blockage of the meibomian glands. They usually are asymptomatic, may have a cosmetic blemish or may rarely cause local infections. The aim of the study was to evaluate the therapeutic effect of a herbal paste in the management of *Bardah* patient. It was conducted in the outpatient department of National Teaching Hospital of Ayurveda, Borella. In this study, a 42- year-old female patient came with complaint of a pea sized mass on her upper eyelid for 25 days. Based on the characteristic features the condition was diagnosed as *Bardah* and she was treated by an external application of a herbal paste over the lesion daily for 2 weeks. The results suggested that, the drugs under the trial had shown considerable improvement in the signs and symptoms of *Bardah* from 5<sup>th</sup> day on wards. Hence, it can be concluded that further trials should be done in large samples to evaluate the efficacy and safety of particular paste in the management of *Bardah*.

**Key words:** *Bardah*, *chalazion*, *cosmetic blemish*, *Ghaleez Balgham*, *herbal paste*.

## I INTRODUCTION

*Bardah* is a movable *Balghami Varm* (phlegmatic swelling) that appears as a hail on the internal surface of the eyelids (Anonymous, 2012), and the causative factor is *Ghaleez Balgham* (thick phlegm), which accumulates in the meibomion glands of the eye lid causes impaired function that produces swelling, pain and heaviness on the site of the gland. In modern, this condition can be correlated with chalazion, which is one of the commonest type of eyelid lesions, and it refers to chronic granulomatous inflammatory condition that occurs in meibomion glands in the upper or lower eyelids (Li et al, 2020). It is commonly seen in adults and often occurs in crops. It perhaps develops as a result of infection by an organism of low virulence or by chronic irritation. The entire gland is replaced by a granulation tissue containing giant cells (Nema and Nema, 2008). It is one of the most common eyelid diseases affecting individuals of all ages, including children. The meibomion gland or tarsal glands are exocrine glands responsible for secreting meibum, an oily substance which can reduce evaporation of the tear film, facilitate lubrication of the ocular surface, and provide a smooth optical surface (Li et al, 2020). Usually, chalazion is an asymptomatic condition, but may have a cosmetic blemish or may rarely cause local infections.

According to Unani system of medicine, *Bardah* is a type of compound disease of hard swelling in which all three factors for a disease, viz; *Su e Mizaj* (mal temperament), *Su e Tarkeeb* (structural changes) and *Tafarruq al Ittisal* (discontinuity of the structure) are involved. When we planned the treatment, it is better to consider internal use of medicines as well as external applications which should have the properties of resolvent, anti inflammatory, antiseptic, wound healing and astringent. The aim of the study was to to evaluate the therapeutic effect of a herbal paste in the management of *Bardah* patient.

## II METHODOLOGY

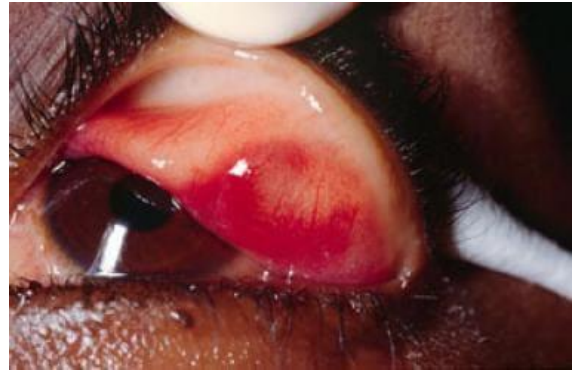
### 2.1 Case study

A 42-year-old married female patient, who was working in an office as a clerk had recurrent attack of symptoms of a pea sized mass with heaviness and mild pain on her left upper eyelid for 25 days. This patient was registered and diagnosed as chalazion in the outpatient department of National Ayurveda Teaching Hospital, Borella. Then the Patient was treated by selected Unani medicines with a Unani herbal paste.

### 2.2 On examination



(Figure- 1)



(Figure- 2)

External structures viz; eyebrow, upper and lower eye lashes, conjunctiva, cornea, iris and pupil were normal in their nature, but the left outer 1/3 of the upper eye lid was swollen with pea sized mass (Figure- 1) on inspection. When palpate the mass it was hard in nature with mild tender, and on eversion of the upper eyelid, the palpebral conjunctiva was red in colour over the chalazion (Figure- 2).

Further, examination showed that her visual acuity was normal as 6/6, eye movements, light reflex and the red reflex also were normal.

### 2.3 Drug with mode of administration

The patient was treated by *Itrifal Ustakhuddoos* and *Jawarish e Mastagi* internally and application of herbal paste externally. i.e. 5gm of *Itrifal Ustakhuddoos* with warm water at night and 2.5 gm of *Jawarish e Mastagi* with warm water in the morning with local application of the research herbal paste over the mass externally daily for 14 days. The subject was advised not to apply any other medicine over the mass and whenever she felt heaviness and discomfort in the affected eye lid, instructed to relax the eyes by gentle closure of the eye lids. The patient was under the observation for three months.

### 2.4 Method of preparation of the herbal paste

The herbal paste consists of *Habb e Ayarij* (Kabir, 2003) and *Arq e Gulab*. The pill *Habb e Ayarij* consists of *Aloe vera*, *Ipomea turpenthum*, *Valerina wallichil*, *Polyporus officinalis*, *Ipomoea hederacea*, *Astragalus gummifera*, Sodium chloride, *Citrullus colocynthis* and *Foeniculum vulgare*. Half of a pill was rubbed in 1 teaspoon of *Arq e Gulab* to make a fine paste.

## III RESULTS AND DISCUSSION

The symptoms heaviness, mild pain and swelling were measured on day 0, 5, 10 and 14; and obtained the final results by comparing the symptoms severity and patient's satisfaction. The pre- and post-study effect of the herbal paste was assessed by Symptom Severity Score (SSS) and the effect was found on 5<sup>th</sup> day on wards.

*Habb e Ayarij* is an important popular compound Unani formula prescribed since the period of Hippocrates. It has been internally use for long time for various therapeutic effects due to its properties like *Mundammile Qurooh* (wound healing), *Musakkin alam* (analgesic), *Maniye ufoonat* (antiseptic), *Maniye Insebaabe Mavaad hadda* (prevent infiltration of acute substances) and *Muhallil* (resolvent). This was the first time the *Habb e Ayarij* used as an external application, therefore, we could not find any supportive evidence to show the effectiveness of the herbal paste on chalazion.

The result consistent with the effect of *Habb e Ayarij* possesses a good number of herbs which have the therapeutic effects by resolve the *maaddaah* (diseases producing substance) of chalazion and it produces strengthen the eye lid.

Despite the availability of different topical and systemic therapeutic options for the treatment of chalazion, it requires incision and curettage (Nema and Nema, 2008). But, medicinal plants play a key role in preventing various diseases (Fazeenah, AHA. Salma MLU. 2021). Our study demonstrated a marked reduction of symptoms of chalazion and increased patient's quality of life by using the herbal paste.

The effect of the herbal paste may be due to its chemical constituents. The *Aloe vera* possess especially aloin, resin fraction and with the combination of Kundur, it produces healing of chalazion (Hameed,2021). Heggers JP et al <sup>1996</sup> investigated to identify wound healing property of Aloe gel on excisional wound model, and they found that it increases collagen content of the wound, changed collagen composition and increased the degree of collagen cross linking. Due to this, it accelerated wound contraction and increased the breaking strength of resulting scar tissue. Further, Aloe vera possess anti-inflammatory action by inhibits the cyclooxygenase pathway and reduces prostaglandin E2 production from arachidonic acid (Surjushe et al, 2008).

The chloroform extracts of *Ipomea turpethum* possess anti inflammatory activity (Khare, 2007) and also it showed the analgesic activity in mice using tail immersion and writhing induced by acetic acid model (Choudhary et al, 2020).

The essential oil and alcohol extract of *Valeriana wallichii* exerted good peripheral analgesic action via inhibition of prostaglandin synthesis on acetic acid induced writhing. Carrageenan induced hind paw edema test on the acute and chronic phase inflammation models in male wistar rats showed in vitro and in vivo anti inflammatory activity of the ethyl acetate fraction showed good activity (Devi and Rao, 2014).

*Polyporus officinalis* contains agaricin, white ash, rich in phosphates and soft resin possess astringent action (Hameed, 2021). *Ipomoea hederacea* extract inhibited acetic acid induced writhing in mice and increased the pain threshold according to the hot plate method (Zia-Ul-Haq et al, 2012). Aqueous extracts of roots and stems of the plant *Citrullus colocynthis* showed analgesic activity and the immature fruit and seed showed anti-inflammatory activity against carrageenan induced paw edema assay in rats (Pravin et al, 2013).

The 70% methanolic extract of *Foeniculum vulgare* has been reported to exhibit in vitro anti-tumour activity against B16F10 melanoma cell line by trypan blue exclusion assay for cell viability, and it showed good anti-tumour activity at the concentration of 200 lg/ml suggests that *Foeniculum vulgare* could be considered as a natural resource of anti tumour agents.

The anti-inflammatory activity of *Rosa damascena* extract was evaluated by the carrageenan-induced paw edema test, which act by inhibiting the mediators of acute inflammation and the ethanolic extract of this plant had analgesic effect comparable to 0.9 mg/kg of morphine (Negi et al, 2016).

#### IV. CONCLUSION

A 15 days treatment with herbal paste as local application over the mass was proved to be markedly effective as it resulted in reduction of symptoms and improved quality of life of the patient without any adverse effects. Though, further studies are recommended with large sample, multi centered and modified methodology to detect the mode of action of the drugs used as well as to find out the main causes. However, it is concluded that this fine herbal paste can be used as local application in the treatment of chalazion.

#### V. ACKNOWLEDGMENT

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#### VI. CONFLICT OF INTERESTS

The authors declare that there is no conflict of interests regarding the publication of this paper.

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