

Therapeutic effect of ‘*Qurs Ziabetus Khas, Habb-e-Zahar Mohra, Habb-e-Banafsha*’ in Diabetes Mellitus-A Case Report

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ABSTRACT

Objective: Diabetes mellitus (Ziabetus Shakri) is chronic metabolic disease, characterized by persistently elevated blood glucose levels either due to insufficient insulin production or insulin resistance. In Unani system of medicine main causes of Diabetes mellitus is Sue-Mizaj haar of kidney (hot morbid temperament of kidney), which causes increases Quwwate jaziba (Absorptive power) and decreased Quwwate masika (Retentive power) of kidney and Zoaf-e-gurda (weakness of the kidney).

Case Report: This paper presents, 49-year-old male presented to the Outpatient Department (OPD) of RRIUM, JJ Co Location Centre, Byculla, Mumbai, with complaints of weakness, frequent micturition, and increased thirst persisting for the past five months. The patient was diagnosed as Diabetes mellitus, based on symptoms, Fasting Blood Sugar (FBS) and Postprandial Blood Sugar (PPBS) level. The patient was treated with ‘*Qurs Ziabetus Khas, Habb-e-Zahar Mohra, Habb-e-Banafsha*’. Assessment of efficacy was done by symptomatic improvement in polyuria, polydipsia, FBS and PPBS level before and after treatment.

Conclusion: This Unani formulation effectively improves polyuria, polydipsia, and reduces FBS, PPBS level and may be considered for complimentary management of DM.

Keywords Diabetes Mellitus, *Qurs Ziabetus Khas, Habb-e-Zahar Mohra, Habb-e-Banafsha*. Unani herbal medicine, Case report

INTRODUCTION

Diabetes Mellitus (DM) is a chronic metabolic disorder characterized by persistent hyperglycemia either due to insufficient insulin production or insulin resistance. It affects individuals across all age groups, genders, and geographic regions, a major global cause of morbidity and mortality.^{1,2} It can be diagnosed by elevated glucose concentrations in venous plasma.³ According to the International Diabetes Federation (IDF), the prevalence of DM in India were estimated at 77 million in 2019, with projections indicating an increase to approximately 134 million by 2045.⁴ The etiology of DM primarily involves autoimmune destruction of pancreatic β -cells and insulin resistance.⁵ Clinical manifestations include polyuria, polydipsia, polyphagia, weight loss, blurred vision, and erectile dysfunction.⁶ If left undiagnosed or inadequately

managed, it can lead to acute complications such as diabetic ketoacidosis and hyperglycemic hyperosmolar state.⁷ These complications highlight the critical need for early detection and comprehensive management strategies to mitigate disease burden and improve patient outcomes.

DM has been recognized in Unani medicine under various terminologies, including *Ziabetus, Dolab, Diasquemus, Qaramis, Zalq-al-Majari, Salas-al-Bawl, Zala-qul-Kuliya, Dauwarren, Duara, and Barkariya*.⁸ Ibn Sina referred to DM as *Al-Dulab* (wheel of water) and *Zalakul Kuliya* (diarrhea of urine), emphasizing its hallmark symptoms. Galen described DM as "*Diarrhoea Urinosa*" (diarrhea of urine) and "*dipsakos*" (thirsty disease), highlighting symptoms such as polyuria, fatigue, and emaciation, in severe cases, could lead to death.⁹ According to Unani medicine, the primary cause of *Ziabetus* is *Sue-Mizaj haar* of kidney (hot morbid temperament of kidney). This leads to an increase in *Quwwate Jaziba* (Absorptive power) and a decrease in *Quwwate Masika* (Retentive power) of the kidney. Consequently, the kidney excessively absorbs the watery component of blood, while the urinary bladder fails to retain it, resulting in excessive urination and persistent thirst.^{10,11,12} Jalinus elaborated in his treatise *Al-Miyameer*, that DM arises due to the weakness of *Quwwate-e-Mugayyera* (Discriminative power) of the kidney, further impairing its

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ability to regulate fluid effectively.¹³ The *Unani* system adopts a holistic approach, aiming to cure the disease through the moderation of *Sue-Mizaj-e- Kuliya and Jigar* (kidney and liver) normalizing the blood glucose level, restore the balance of body temperament, and prevent the complications of DM.

Numerous *Unani* formulation have been utilize for managing DM, focusing on improving blood glucose levels, alleviating symptoms, and moderating the temperament. Among them, *Qurs Zibetus Khas* has been reported to effectively reduce blood glucose levels and alleviate excessive thirst. Similarly, *Habb-e-Zahar Mohra* acts as a *Musakkin Hararat* (heat relieving agent) with thirst-relieving properties, and *Habb-e-Banafsha* plays a vital role in moderating the temperament, reducing excessive heat in the body, and producing a cooling effect.¹⁴

CASE STUDY

Chief Concern:

A 49-year old male presented to the Outpatient Department (OPD) of RRIUM, JJ Co-Location Centre, Byculla-Mumbai, with complaints of weakness, frequent micturition, and increased thirst persisting for the past five months.

History of Present Illness:

The patient reported being in good health until five months ago, when he gradually developed weakness, frequent micturition, and increased thirst. There were no other associated symptoms.

Past Medical History:

The patient has no history of any other medical conditions.

Family History:

- Mother: Alive and well at 69 years of age; has a history of DM and hypertension.
- Father: Deceased at the age of 74 due to myocardial infarction.
- No siblings.

Personal History:

- No significant findings.

Clinical Findings

Physical Examination:

- Weight: 72 kg
- Height: 167 Cm
- Body Mass Index (BMI): 26 kg/m²
- Temperature: 97.4°F (Axillary)
- Blood Pressure: 110/80 mmHg
- Heart Rate: 84 beat per minute
- Respiratory Rate: 18 breaths per minute
- Oxygen Saturation: 98% on room air

Respiratory System:

- Eupnoea, lungs clear to auscultation throughout, with resonance to percussion.

Cardiovascular System:

- Chest non-tender, No heaves or thrills.
- Normal heart sounds (S1, S2), with no additional sounds (S3, S4).
- No murmurs, rubs, or gallops.

Abdomen:

- Soft abdomen with centrally placed umbilicus and no tenderness was present.

Central Nervous System:

- Patient was well oriented to, time, place and person.

Assessment of Mizaj (Temperament):

- The patient's *Mizaj* (temperament) was recorded using a standard proforma and determined to be *Safrawi* (Bilious).

Table 1. Clinical features during the Treatment period

Findings	21 October 2024	6 November 2024	16 December 2024
Fasting blood sugar	266 mg/dL	197 mg/dL	107 mg/dL
Post prandial blood sugar	403 mg/dL	297 mg/dL	151 mg/dL

Table 2. Laboratory findings of blood glucose level

Clinical features & vitals	Base line 21 October 2024	1 st follow up 6 November 2024	2 nd follow up 16 December 2024
polydipsia	+++	++	-
Polyuria	+++	++	-
Pulse Rate	78/ min	78/ min	74/ min
Blood Pressure	130/ 90 mmHg	130/ 90 mmHg	120/ 90 mmHg
Body weight	72 kg	72 kg	71 kg

Reference thresholds from ADA guidelines

FPG ≥126 mg/dL (Fasting plasma glucose)

PG ≥200 mg/dL (2-hrs plasma glucose)

Diagnosis and Classification of Diabetes: Standards of Care in Diabetes-2025

DIAGNOSIS:

The patient was advised to undergo Fasting Blood Sugar (FBS) and Postprandial Blood Sugar (PPBS) testing to assess glycemic status. The result for the test dated on 21October 2024 is FBS-266 mg/dL; PPBS-403mg dL by (hexokinase/G-6-PDH Technology).The lab finding confirmed the clinical impression and a diagnosis of DM. The patient was explained about the disease and therapeutic intervention and encouraged to ask any question and all the queries were solved up to the patient's satisfaction and informed consent was obtained.

Therapeutic intervention:

The patient received the following *Unani* Pharmacopoeial formulation.

- *Qurs Zibetus Khas* 2 tablets twice a day half an hour before meals for 7 weeks.

- *Habb-e-Zahar Mohra* 1 tablet twice a day after meals for 7 weeks.
- *Habb-e-Banafsha* 1 tablet twice a day after meals for 7 weeks.

This is a tablet form of *Unani* drug which was prepared by the Indian Medicines Pharmaceutical Corporation Limited (IMPCL) as per National Formulary of *Unani* Medicine (NFUM).

Table 3. Composition of Qurs Zibetus Khas¹⁴

Sr.No.	Ingredients	Botanical Name	Quantity
1.	Tabasheer	<i>Bambusa arundinaceae</i>	25 gm
2.	Satte Gilo	<i>Tinospora cordifolia</i>	25 gm
3.	Magz Khasta Jamun	<i>Syzygium Cumini</i>	50gm
4.	Gurmar Booti	<i>Gymnema Sylvester</i>	50gm
5.	Kushta Post Baiza Murg	<i>Kushta Post Baiza Murg</i>	10gm
6.	Loab-e-Asapgol	<i>Plantago Ovata</i>	10gm

Table 4. Composition of Habb-e-Zahar Mohra¹⁴

Sr. No.	Ingredients	Botanical Name	Quantity
1.	Zaranbad	<i>Curcuma Zedoaria</i>	200 gm
2.	Zahar Mohra	<i>Bezoar</i>	50 gm
3.	Samag Arabi	<i>Acacia nilotica</i>	20gm

Dietary and Lifestyle Modifications:

The patient was advised to adopt dietary and lifestyle changes to support better health outcomes. Specific recommendations included avoiding high sugar and carbohydrate rich foods such as potatoes, rice, sweets, sugar, sweetened beverages, and fatty foods. Instead, the patient was encouraged to consume a diet rich in green leafy vegetables, whole grains, and fiber rich foods and daily routine of 15 minute morning walk was recommended to promote physical activity and overall well being.

Informed consent: Taken.

RESULTS

Prognosis of the patient was keenly observed throughout his treatment period. Patient was advised to come for follow up every 15 days. On 22nd day of treatment his symptoms were improved. He was advised to continue the medicine and get his FBS, PPBS and the results dated on 6November2024 are, FBS-197 mg/dL and PPBS-297mg/dL. After 7 week of treatment, his symptoms were markedly reduced and the result of FBS and PPBS was dated on 16December2024 was FB-107 mg/dL and PPBS-151mg/dL. There was no adverse event detected during treatment period.

DISCUSSION

This study highlights the potential of *Unani* pharmacopeial

drugs for managing DM. In *Unani* system of medicine, the basic principle of treatment is *Ilajbilid* i.e., treatment is selected as per temperament of drugs, as contrary to the abnormal constitution of disease.¹⁵ According to the *Unani* perspective, DM is categorized as a disorder of *Sū-e-Mizāj Hār Yābis* (abnormal hot and dry temperament). Thus, remedies with *Barid Ratab* (cold and moist temperament) properties, *Muqawwi-e-Gurda* (kidney strengthening) drugs and diets are deemed beneficial.¹⁶ Several *Unani* formulations are available for managing DM, focusing on improving blood glucose levels, alleviating symptoms, and normalizing temperament. Particularly *Qurs Zibetus Khas, Habb-e-Zahar Mohra, Habb-e-Banafsha* has shown efficacy in reducing blood sugar levels and alleviating polydipsia, polyuria in diabetic patients.

A study conducted by Parvez A. reported that *Qurs-e-Zibetus Khas* exerts significant anti-diabetic effects by promoting pancreatic β - cell regeneration, thereby enhancing insulin secretion and improving glucose metabolism. These findings are consistent with previous research, which also demonstrated that *Qurs-e-Zibetus Khas* significantly reduces blood sugar levels through β - cell regeneration and enhanced insulin secretion.¹⁷ Similarly, Javed A. investigated the effects of this formulation in alloxan-induced diabetic rabbits, reporting a dose-dependent reduction in blood glucose levels, further supporting its role in stimulating β - cell function.¹⁸ Moreover, Sharma B. et al.(2008) conducted a preclinical evaluation of the anti-diabetic properties of Jamun (*Eugenia jambolana*) seed extract, revealing potent anti-hyperglycemic effects in streptozotocin-induced diabetic rats. The mechanism of action was attributed to the activation of peroxisome proliferator-activated receptors (PPARS) and the presence of bioactive compounds such as glycoside jamboline, ellagitannins, corilagin, hexahydroxydiphenoyl glucose, galloylglucose, gallic acid, and ellagic acid.¹⁹ Similarly, Rajalakshmi M. reported that oral administration of Gilo (*Tinospora cordifolia*) stem extracts exhibited potent anti-diabetic activity, reducing blood sugar levels in streptozotocin-induced diabetic rats. The effect was mediated by increased insulin secretion from islets of langerhans and enhanced glucose transport to peripheral tissue. Active constituents such as N-formylannonain, N-methyl-2-pyrrolidone, 11-hydroxymustakone, cordifolioside A, magnoflorine, tinocordiside, and syringing were identified as key contributors to its anti-diabetic properties, stimulating glycogen synthase activity in the liver and promoting glucose storage in hepatocytes.²⁰ Furthermore, Kumar H. reported that the aqueous extract of *Gurmar Booti* (*Gymnema sylvestre*) leaves, which contains gymnemic acid, exhibits significant antioxidant and hypoglycemic effects. This formulation enhances insulin sensitivity and increases the activity of enzymes involved in glucose utilization through an insulin dependent pathway.²¹

The key ingredients of *Habb-e-Zahar Mohra* include *Zahar Mohra* (Bezoar stone or Serpentine) and *Zaranbad* (*Curcuma zedoaria*). *Zahar Mohra* is a mineral comprising of magnesium, iron, nickel, aluminum, zinc, manganese, and silicon. Deficiencies of these minerals and trace elements may

contribute to imbalances in glucose homeostasis and oxidative stress, which can ultimately lead to insulin resistance. Additionally, it exhibits *Mohallil Auram* (anti-inflammatory) properties, which may contribute to its antidiabetic effects by reducing oxidative stress and inflammation in the body. Furthermore, according to *Unani* literature it possesses multiple therapeutic properties, including *Musakkin Hararat* (thirst-relieving) and *Muqawwi-e-Aza-e-Raeesa* (tonic for vital organs). Given that polydipsia (excessive thirst) is a hallmark symptom of diabetes mellitus. *Habb-e-Zahar Mohra* may provide symptomatic relief. Moreover, its protective effects on vital organs are significant, as *Unani* literature suggests that drugs improving vital organ functions enhance renal function. This is particularly relevant in the context of diabetes mellitus, from a *Unani* perspective, which is associated with *Sue Mizaj-Kulliyya* and *Jigar* (hepatic renal dysfunction).^{22,23,24}

Zaranbad (*Curcuma zedoaria*) is known for its potential antidiabetic effects, attributed to its alpha-glucosidase inhibitory activity, antioxidant, anti-inflammatory properties, and insulin-sensitizing effects. The combined effects of these ingredients suggest that *Habb-e-Zahar Mohra* may contribute to lowering blood sugar levels.^{25,26}

Habb-e-Banafsha is a traditional *Unani* formulation composed of *Banafsha* (*Viola odorata*), *Rubb-us-Soos* (*Glycyrrhiza glabra*), and *Turbud* (*Operculina turpethum*). *Unani* scholars have highlighted the therapeutic potential of *Habb-e-Banafsha* in moderating temperament and alleviating excess heat in the body, thereby producing a cooling effect. DM as per *Unani* concept is associated with *Sue-Mizaj-e-Harr kulliyya* (morbid hot temperament of the kidney). Based on the principle of *Ilaj bil-Zid* (contrary treatment), *Habb-e-Banafsha* can be effectively utilized for managing DM, as its counteract the hot temperament of DM.^{14,27} In silico analysis conducted by Buabeid MA indicates that *Banafsha* (*Viola odorata*), contains bioactive compounds such as rutin, eugenol, vanillic acid, stigmasterol, and limonene, all of which exhibit a potential association with insulin activity. These findings suggest that *Banafsha* (*Viola odorata*), may play a role in DM.²⁸

Pereira A.S. reported that virtual screening of *Rabbussus* (*Extract of Glycyrrhiza glabra*) revealed its potent antidiabetic activity, effectively reduced blood glucose levels, modulated serum insulin levels, improved antioxidant status, enhanced liver function, in streptozocin induced diabetic rats.²⁹ Similarly, *Pulipaka S.* demonstrated that *Turbud* (*Operculina turpethum*) stem and root extracts effectively reduced blood sugar levels in streptozotocin-induced diabetic rats.³⁰ The combined pharmacological effects of these ingredients suggest that *Habb-e-Banafsha* may contribute to lowering blood glucose levels.

This study concludes that *Unani* drugs *Qurs Ziaetus Khas*, *Habb-e-Zahar Mohra*, *Habb-e-Banafsh* hold significant potential for managing DM. While numerous other treatment options are available, natural-origin therapies offer the advantages of lower toxicity and high efficacy. However it is

crucial to conduct randomized clinical trials on a larger scale to comprehensively evaluate and validate their therapeutic efficacy and safety.

CONCLUSION

In conclusion, *Unani* formulations offer promising avenues for managing DM by leveraging their holistic and temperament based therapeutic approach. Further clinical studies are warranted with a larger sample size, longer duration of intervention, to validate their efficacy and elucidate their precise mechanisms of action in diabetic patients.

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CONFLICT OF INTEREST

The authors declare no competing interests.

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