

Diabetes Mellitus (Ziabetus Shakri) and the Unani Approach: Reconsidering Classical Concepts in Contemporary Care

Dr. Sayyed Minhaj¹, Dr. Jameel Ahmed Ghulam Rabbani², Dr. Shaikh Imtiyaz³

¹ Assistant Professor, Department of Amraze Atfal wa Naumaulood, Mohammadia Tibbia College (MTC) & Assayer Hospital, Mansoor, Malegaon, Maharashtra, India. Email: minhajmdnium@gmail.com

² Associate Professor, Department of Amraze Jild wa Tazineeyat, Al Amin Unani Medical College, Malegaon, Maharashtra, India. Email: jameelrabbani1978@gmail.com

³ Assistant Professor, Department of Maolejat, Mohammadia Tibbia College (MTC) & Assayer Hospital, Mansoor, Malegaon, Maharashtra, India. Email: drimtiyaznium@gmail.com

Abstract

Diabetes mellitus is a heterogeneous metabolic disease in which persistent hyperglycaemia arises from impaired insulin secretion, insulin action, or both. Unani literature describes a clinically comparable syndrome as *Ziabetus Shakri*, recognized by excessive urination, intense thirst, sweet urine, weight loss, and progressive weakness. Classical explanations invoke *Sue Mizaj*, altered *Hararat-e-Gharizi*, disturbed *Akhlat*, and weakness of the renal *Quwwat-e-Masika*. This narrative review places those concepts beside contemporary endocrinology without treating them as equivalent. It draws on major Unani texts and biomedical literature to compare clinical description, pathogenesis, diagnosis, prevention, and treatment. The strongest point of convergence is practical: both traditions value dietary regulation, physical activity, weight management, individualized care, and prevention of complications. Some plants used in Unani practice show glucose-lowering or antioxidant activity in laboratory and small clinical studies, but products, doses, outcomes, and study quality vary. These interventions should therefore be investigated as possible adjuncts, not replacements for glucose monitoring and evidence-

based treatment. Future work needs authenticated ingredients, standardized formulations, interaction and toxicity testing, adequately powered randomized trials, and clinically meaningful long-term outcomes.

Keywords

Ziabetus Shakri; diabetes mellitus; Unani medicine; Sue Mizaj; Ilaj bil Ghiza; lifestyle; integrative care

1. Introduction

Diabetes mellitus is defined by sustained hyperglycaemia caused by inadequate insulin secretion, reduced insulin action, or both. Over time, metabolic disturbance can damage the eyes, kidneys, nerves, heart, and blood vessels [1]. The IDF estimated that 537 million adults were living with diabetes in 2021 and projected a substantial further increase by 2045 [2].

Modern care combines nutrition, activity, weight management, medicines, monitoring, and systematic screening for complications. Outcomes nevertheless vary because diabetes is biologically and socially complex. Interest in complementary approaches should be judged against this background and should not obscure therapies known to reduce morbidity and mortality.

Unani physicians described a syndrome called *Ziabetus* or *Ziabetus Shakri* centuries before insulin physiology was understood. Ibn Sina, Al-Razi, and Al-Majusi recorded polyuria, thirst, wasting, sexual dysfunction, poor wound healing, and severe late disease [3–5]. Their explanatory model differs from endocrinology, yet several preventive practices remain relevant to present-day lifestyle care.

Aim and Objectives

This review examines the classical account of *Ziabetus Shakri*, compares it cautiously with diabetes mellitus, assesses the evidence for selected Unani interventions, and identifies priorities for safe integrative research.

2. Review Method

A narrative search combined *Al-Qanun fi al-Tibb*, *Kitab al-Mansuri*, *Kamil al-Sana'ah al-Tibbiyah*, *Kulliyat-e-Qanoon*, and *Makhzan al-Advia* with material indexed in PubMed, Scopus, Web of Science, Google Scholar, and ScienceDirect. Search concepts included diabetes, *Ziabetus Shakri*, type 2 diabetes, Unani medicine, medicinal plants, and integrative care. Clinical trials, reviews, experimental studies, standards, and major guidelines were considered. Duplicate reports, inaccessible conference abstracts, and material without an interpretable scientific translation were excluded. Because this was not a preregistered systematic review, its conclusions are interpretive rather than exhaustive.

3. Historical Description

The word *Ziabetus* is related to the Greek *diabainein*, referring to fluid passing through the body; *Shakri* denotes sweetness [4]. Classical writers described frequent abundant urine, persistent thirst, dryness, loss of weight and strength, and, in advanced illness, visual problems, sexual weakness, ulcers, or gangrenous lesions [5]. These observations resemble recognizable features of uncontrolled diabetes, but historical descriptions alone cannot establish a one-to-one diagnostic identity.

4. Classical Unani Framework

In Unani theory, *Ziabetus Shakri* involves the kidneys and urinary passages within a broader disturbance of temperament and humours. *Sue Mizaj Har Yabis* indicates an abnormal hot and dry state; weakness of *Quwwat-e-Masika* denotes reduced

retaining power; altered *Hararat-e-Gharizi* and disturbed *Akhlat* are used to explain systemic decline [6]. Polyuria is understood to deplete fluid and provoke thirst. These are internally coherent classical concepts, not alternate names for insulin resistance, beta-cell failure, or osmotic diuresis.

5. Etiology and Pathogenesis

Traditional accounts associate the disorder with excess food, dietary qualities, obesity, inactivity, stress, age, heredity, and occasionally excessive exertion. Modern medicine distinguishes autoimmune beta-cell destruction in type 1 diabetes from insulin resistance with progressive beta-cell dysfunction in most type 2 diabetes. Genetics, adiposity, ectopic fat, inflammation, sleep, medicines, and social and environmental conditions can all contribute [7]. The two accounts share certain observed risk factors while explaining causation through different frameworks.

6. Classification and Clinical Features

Modern classification includes type 1, type 2, gestational, monogenic, pancreatic, drug-induced, and other specific forms. This distinction matters because treatment and urgency differ. Classical Unani assessment instead attends to *Mizaj*, duration, symptom intensity, strength, and organ involvement.

Polyuria, polydipsia, fatigue, blurred vision, recurrent infection, and unintended weight loss may occur in diabetes. Classical descriptions of thirst, abundant urine, dryness, weakness, wasting, sexual difficulty, poor wound healing, and carbuncles overlap substantially. Many people with type 2 diabetes, however, remain asymptomatic; symptom-based assessment alone will miss disease.

7. Diagnosis

Contemporary diagnosis relies on validated laboratory thresholds. Diabetes may be diagnosed by fasting plasma glucose of at least 126 mg/dL, HbA1c of at least 6.5%, two-hour plasma glucose of at least 200 mg/dL during a 75-g oral glucose tolerance test, or random plasma glucose of at least 200 mg/dL with classic symptoms or hyperglycaemic crisis [8]. In an asymptomatic person, confirmatory testing is generally required.

Unani assessment uses history, urine output, thirst, physical findings, *Mizaj*, and complications. Historical examination of urine was clinically

resourceful, but tasting urine is unsafe and obsolete. Constitutional assessment cannot replace laboratory diagnosis, classification, ketone assessment when indicated, or screening for renal, retinal, neurological, and cardiovascular disease.

8. Complications

Chronic hyperglycaemia contributes to advanced glycation, oxidative stress, endothelial dysfunction, and microvascular injury [9]. Retinopathy, kidney disease, neuropathy, coronary disease, stroke, peripheral arterial disease, foot ulceration, infection, and sexual dysfunction are major concerns. Acute emergencies include diabetic ketoacidosis and hyperosmolar hyperglycaemic state.

Unani texts recorded wasting, *Zo'f-e-Badan*, sexual debility, visual impairment, chronic urinary problems, ulcers, carbuncles, and gangrene [10]. The clinical overlap is important historically, although modern mechanisms, risk stratification, and organ-specific surveillance offer a more testable basis for prevention.

9. Principles of Integrative Management

Diabetes care should begin with correct classification, shared targets, education, glucose monitoring when appropriate, and management of blood pressure, lipids, kidney risk, smoking, and complications. Any Unani intervention should be added only after checking product quality, contraindications, interactions, and the risk of hypoglycaemia. Insulin must never be stopped in type 1 diabetes.

Classical management seeks to correct *Sue Mizaj*, support organ function, reduce thirst and urination, improve digestion, and preserve strength. Individualization by *Mizaj*, age, severity, and comorbidity can encourage attention to the whole patient, but it must remain subordinate to objective safety monitoring.

10. *Ilaj bil Ghiza* (Dietotherapy)

Ilaj bil Ghiza treats food as a central therapeutic measure. Traditional recommendations favour barley or whole-wheat preparations, pulses, leafy and bitter vegetables, gourds, fenugreek, *amla*, and pomegranate, while limiting concentrated sweets, refined flour, fried food, and excess animal fat [11]. This pattern broadly supports fibre-rich, minimally processed eating.

Modern dietary advice is not a fixed list of permitted and forbidden foods. It should consider total carbohydrate, fibre, energy intake, culture, affordability, kidney function, medicines, and the patient's goals. Honey and sweet drinks raise glucose; fruit portions and dairy need individual planning. No traditional food should be presented as a substitute for prescribed medication.

11. *Ilaj bil Tadbeer* (Regimental Therapy)

Ilaj bil Tadbeer includes walking, moderate exercise, weight reduction when appropriate, *Dalak*, *Tareeq*, sleep regulation, stress reduction, and smoking cessation. Regular aerobic and resistance activity, reduced sedentary time, adequate sleep, and sustained weight management are supported in diabetes prevention and treatment. Massage or induced sweating may improve comfort for some people but has not been shown to correct hyperglycaemia and may be unsafe in dehydration, neuropathy, vascular disease, or unstable illness.

12. *Ilaj bil Dawa* and Medicinal Plants

Karela, *Jamun Beej*, *Methi*, *Amla*, *Gudmar*, and *Neem* appear in traditional antidiabetic practice. Experimental studies report effects on glucose absorption, insulin signalling, oxidative stress, or inflammatory pathways [12,14,18–20]. Such findings are hypothesis-generating. Botanical identity, extraction, dose, contaminants, and bioavailability differ greatly across preparations, and laboratory activity does not guarantee clinical benefit.

Compound products such as *Qurs Zibetus* and *Safoof Zibetus* have been evaluated in preliminary work, but small samples, short follow-up, inconsistent comparators, and incomplete adverse-event reporting limit confidence [12]. Concurrent use with insulin, sulfonylureas, or other glucose-lowering drugs can increase hypoglycaemia risk. Liver, kidney, pregnancy, and perioperative safety also require consideration.

13. Contemporary Pharmacological Care

Modern treatment is selected according to diabetes type, HbA1c, symptoms, cardiovascular and kidney disease, weight goals, hypoglycaemia risk, cost, and patient preference [13]. Metformin remains common, while SGLT2 inhibitors and GLP-1 receptor agonists can provide cardiorenal or weight-related benefits in suitable patients. Other options include DPP-4 inhibitors, sulfonylureas,

thiazolidinediones, alpha-glucosidase inhibitors, and insulin. Choice and dose require individualized clinical review; no single hierarchy fits every patient.

14. Comparative Interpretation

Both systems recognize variation among patients and emphasize food, activity, and prevention. The similarity is most defensible at the level of clinical observation and care goals. Equating insulin resistance with *Sue Mizaj*, beta-cell dysfunction with weakened *Hararat-e-Gharizi*, or polyuria with *Quwwat-e-Masika* would collapse unlike concepts and create a false impression of mechanistic validation.

A productive integrative model can preserve Unani terminology as a clinical and cultural framework while using laboratory diagnosis, evidence-based medicines, complication screening, and pharmacovigilance as non-negotiable safeguards.

15. Evidence, Limitations, and Research Priorities

Medicinal-plant literature supports biological plausibility, but definitive patient-centred evidence remains sparse. Future trials should authenticate raw materials, standardize active constituents, register protocols, calculate adequate sample sizes, use appropriate controls, and report HbA1c, hypoglycaemia, quality of life, adherence, interactions, and organ toxicity. Longer studies should examine cardiovascular, kidney, retinal, and foot outcomes rather than glucose alone.

Validated and reproducible *Mizaj* assessment is also needed if constitutional categories are to be studied as effect modifiers. Multicentre cohorts could test whether classifications predict response after controlling for age, sex, adiposity, medicines, diet, and socioeconomic factors. Metabolomics or pharmacogenomics may assist, but exploratory correlations must be replicated before clinical use [22–26].

16. Conclusion

Ziabetus Shakri is a historically sophisticated clinical account of a diabetes-like illness. Its descriptions of polyuria, thirst, wasting, weakness, difficult wounds, and late complications demonstrate careful bedside observation. Unani advice on dietary moderation, activity, and individualized care can support patient engagement when presented safely. Yet classical constructs and modern metabolic

mechanisms are not interchangeable, and evidence for Unani drugs remains insufficient for replacing established therapy. Responsible integration requires standardization, interaction testing, rigorous trials, transparent safety reporting, and continued laboratory monitoring.

17. Selected Unani Drugs: Evidence and Cautions

Traditio nal drug	Botanic al identity	Reported evidence	Interpreti ve caution
<i>Karela</i>	Momord ica charanti a	Glucose uptake and insulin- sensitivity effects	Preparatio ns and clinical results vary
<i>Jamun Beej</i>	Syzygiu m cumini	Hypoglycaem ic and antioxidant findings	Human dose and long-term safety uncertain
<i>Methi</i>	Trigonel la foenum- graecum	May delay carbohydrate absorption	Can add to medicine- related hypoglyca emia
<i>Amla</i>	Phyllant hus emblica	Antioxidant activity	Clinical glucose benefit not established
<i>Gudmar</i>	Gymne ma sylvestre	Experimental insulin-related effects	Beta-cell regeneratio n is not proven in patients
<i>Neem</i>	Azadira chta indica	Experimental antihyperglyc aemic activity	Toxicity and interaction assessment required

18. References

[1] American Diabetes Association Professional Practice Committee. Standards of care in diabetes—2025. Diabetes Care. 2025;48(Suppl 1):S1–S350.

- [2] International Diabetes Federation. IDF Diabetes Atlas. 10th ed. Brussels: International Diabetes Federation; 2021. p.1–141.
- [3] Ibn Sina (Avicenna). *Al-Qanun fi al-Tibb* (Canon of Medicine). Vol. 3. New Delhi: Central Council for Research in Unani Medicine (CCRUM); Reprint 2007. p.196–214.
- [4] Razi AB. *Kitab al-Mansuri*. New Delhi: CCRUM; Reprint 2008. p.132–145.
- [5] Al-Majusi AI. *Kamil al-Sana'ah al-Tibbiyah*. New Delhi: CCRUM; Reprint 2010. p.248–261.
- [6] Kabiruddin M. *Kulliyat-e-Qanoon*. New Delhi: Aijaz Publishing House; Reprint 2016. p.274–289.
- [7] Kumar V, Abbas AK, Aster JC. Robbins and Cotran Pathologic Basis of Disease. 10th ed. Philadelphia: Elsevier; 2021. p.1097–1132.
- [8] American Diabetes Association Professional Practice Committee. Classification and diagnosis of diabetes: Standards of care in diabetes—2025. *Diabetes Care*. 2025;48(Suppl 1):S20–S42.
- [9] Longo DL, Fauci AS, Kasper DL, Hauser SL, Jameson JL, Loscalzo J, editors. *Harrison's Principles of Internal Medicine*. 21st ed. New York: McGraw-Hill Education; 2022. p.2850–2886.
- [10] Nafis Ibn Awad Kirmani. *Kulliyat-e-Nafisi*. New Delhi: CCRUM; Reprint 2009. p.220–235.
- [11] Ahmad SI, Zulkifle M, Ahmad S. Dietary principles in Unani medicine and their relevance in metabolic disorders. *J Complement Integr Med*. 2020;17(4):1–10.
- [12] Ahmad S, Jahan N, Rahman SZ. Unani formulations in the management of *Ziabetes Shakri*: A review of experimental and clinical evidence. *J Res Unani Med*. 2021;10(2):61–72.
- [13] Davies MJ, Aroda VR, Collins BS, et al. Management of hyperglycaemia in type 2 diabetes: A consensus report by the American Diabetes Association and the European Association for the Study of Diabetes. *Diabetes Care*. 2022;45(11):2753–2786.
- [14] Rahman SZ, Zulkifle M, Ahmad SI. Herbal antidiabetic drugs used in Unani medicine: Current evidence and future perspectives. *J Ayurveda Integr Med*. 2022;13(4):100532.
- [15] Guyton AC, Hall JE. *Textbook of Medical Physiology*. 14th ed. Philadelphia: Elsevier; 2021. p.949–980.
- [16] World Health Organization. *Global Report on Diabetes*. Geneva: World Health Organization; 2016. p.1–88.
- [17] Buse JB, Wexler DJ, Tsapas A, et al. 2023 update to the management of hyperglycaemia in type 2 diabetes. *Diabetologia*. 2023;66(12):2153–2176.
- [18] Bailey CJ, Day C. Traditional plant medicines as treatments for diabetes. *Diabetes Care*. 1989;12(8):553–564.
- [19] Grover JK, Yadav S, Vats V. Medicinal plants of India with antidiabetic potential. *J Ethnopharmacol*. 2002;81(1):81–100.
- [20] Modak M, Dixit P, Londhe J, Ghaskadbi S, Devasagayam TPA. Indian herbs and herbal drugs used for the treatment of diabetes. *J Clin Biochem Nutr*. 2007;40(3):163–173.
- [21] World Health Organization. *WHO Global Report on Traditional and Complementary Medicine 2019*. Geneva: World Health Organization; 2019. p.1–226.
- [22] Central Council for Research in Unani Medicine (CCRUM). *Standard Unani Medical Terminology*. New Delhi: Ministry of AYUSH; 2012. p.132–168.
- [23] Patwardhan B, Vaidya ADB. Ayurveda, traditional medicine and integrative approaches to diabetes management. *J Ayurveda Integr Med*. 2014;5(3):141–143.
- [24] Sofi G, Zulkifle M, Ahmad S. Lifestyle modification in Unani medicine: Relevance in diabetes prevention and management. *J Complement Med Res*. 2021;12(1):90–99.
- [25] GBD 2021 Diabetes Collaborators. Global, regional, and national burden of diabetes from 1990 to 2021. *Lancet*. 2024;403(10444):2427–2465.
- [26] World Health Organization. *WHO Traditional Medicine Strategy 2025–2034*. Geneva: World Health Organization; 2025. p.1–98.