

**A CHALLENGE TO ACHIEVE GLYCAEMIA CONTROL IN A PATIENT WITH TYPE-2
DIABETES MELLITUS THROUGH UNĀNĪ SYSTEM OF MEDICINE: A CASE REPORT****Dr. Uzma Siddiqui¹ and Prof. Abdul Haseeb Ansari*²**¹PG Scholar and ²Professor

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ABSTRACT

Diabetes mellitus is a complex chronic metabolic disorders requiring continuous medical care. It is a leading cause of death and disability worldwide and becomes a major public health problem which is rising alarming day by day. It is associated with high blood sugar level. In literature of Unānī System of Medicine, it has been described as *Dhayābītus Hārr*. The knowledge of diabetes was well documented by *Ibn Sīnā* as early as the 9th century AD and well described in his treatise, *Al-Qānūn fi'l Tibb* as well as in other Unānī classical texts. According to Unānī physicians, the drugs which correct the *Mizāj* (temperament) and restores the *Quwwat Jādhiba* (absorptive faculty) of kidney are used in the management of diabetes mellitus. In the present study, a case of diagnosed Diabetes mellitus was successfully managed with Unānī intervention along with dietary control. The patient was assessed before and after the management to rule out the efficacy.

KEYWORDS: Case Report; Diabetes Mellitus; Insulin; Unānī System of Medicine.

Key Messages: Unani System of Medicine is holistic in nature and takes into account the whole personality rather than taking a reductionist approach towards the disease. It is beneficial and safer healing system that could provide answer to all the questions being faced by the human health in the progressing modern world.

INTRODUCTION

Diabetes mellitus (DM) is a complex chronic metabolic disorders requiring continuous medical care with multifactorial risk-reduction strategies beyond glycaemic control, to avoid harming complications to body systems.^[1,2] It is a leading cause of death and disability worldwide and becomes a major public health problem which is rising alarming day by day.^[1,3] WHO reports that DM will be the 7th leading cause of death in next 15 years.^[1] According to IDF-25, number of people having diabetes in 2010 was 285 million which is expected to increase up to 438 million by the year 2030.^[2] The global adult prevalence of DM has increased (8.5%) in three years with more incidences in low and middle income countries.^[1] DM is associated with high blood sugar level, either due to lack of insulin production or due to insulin resistance which is characterized by polyuria, polydipsia, polyphagia, weight loss and blurred vision.^[1,2,3,4,5,6,7,8,9]

In Unānī literature, Diabetes mellitus has been described as *Dhayābītus Hārr*.^[7] The knowledge of diabetes was

well documented by *Ibn Sīnā* as early as the 9th century AD and well described in his treatise, *Al-Qānūn fi'l Tibb* as well as in other Unānī classical texts. Ancient Unānī physicians mentioned *Dhayābītus* as a kidney disorder usually caused by *Su'-i-Mizāj Hārr* or *Bārid* (altered temperament).^[5,6,7,8] In both cases the *Quwwat Māsika* (retentive faculty) of the kidney weakens,^[7] which is resulted as excessive thirst, frequent urination and presence of sugar in urine.^[5,6,7,8] According to Unānī physicians, the drugs which correct the *Mizāj* (temperament) and restores the *Quwwat Jādhiba* (absorptive faculty) of kidney are used in the management of diabetes mellitus.^[7,8]

Current trends of oral sulphonylureas, biguanides and thiazolidinediones usage causes economic burden and associated with hepatotoxicity, nephrotoxicity, hypoglycemic coma and cholestatic jaundice. Unānī Medicine is an opportunity for diabetic as it has no chance to become resistance, safe to use and less expensive than other medication. In some cases, it may return the blood glucose levels within normal range as Unānī system of medicine accounts with holistic approach which treats the whole personality rather than taking a reductionist approach towards the disease.

Case History

A 49 years old married male presented with uncontrolled type of Diabetes Mellitus. He complaints of excessive

urination with increased thirst and fatigue from past few months. He stated 3 years positive history of DM and taking only Unānī drugs with negligence and carelessness. On further interviewing, he gives negative parental history of DM. With all these, he visited OPD for seeking proper management of DM. He further enquired about his personal habits and was taking mixed diet with good appetite. No history of smoking/ alcohol/ betel/ any psychotropic substance found. He complains of irregular bladder activity (Day:4-6 times/ Night:1-2 times) which usually hampers his normal daily activity and disturbs his sleeping pattern. He was having regular bowel habits (Day:1/ Night:1). On physical examination,

his vitals were within normal limit and no abnormality was detected on through systemic examination. He has examined for height (162cm), weight (68.15kg), BMI (25.91kg/m²-Overweight).

According to the reported symptoms, patient's blood glucose level was monitored. On 17/12/2020 his fasting glucose level was 259mg/dl and post prandial glucose level was 376mg/dl, both of which was beyond the normal range. With the reported symptoms and investigation, Unānī intervention was given to the patient as mentioned in table-1.

Table 1: Prescribed medicines.

1.	<i>Qurş Dhayābītus</i>	4 tab. four times a day with water	Before meal
2.	<i>Zulāl Dhayābītus</i>	10gm twice a day soaked in water	
3.	Capsule <i>Sat Gilo</i>	2 cap. twice a day with water	After meal
4.	Capsule <i>Asgand</i>	4 cap. twice a day with water	
5.	<i>Safūf Dārchīnī</i>	6gm twice a day with lukewarm water	

Proper care plan was also given to the patient as follows:

- Proper diet - Low sugar intake is recommended. Proper diet chart was given.
- High fibrous diet with less intake of fats and carbohydrates was advised for weight reduction.
- Regular exercise was advised to reduce body weight and to maintain blood glucose level.^[3,10,11,12,13]
- Suggested to check HbA1C level about after every 3rd month.^[3]
- Patient was advised to visit Hospital for effective treatment and regular follow ups.

RESULT

Patient used the suggested medicine and followed the care plan as advised. After 4 months the blood glucose level was monitored to rule out the efficacy of the treatment. The Fasting blood glucose level was 203mg/dl

and Post prandial blood glucose level was 254mg/dl (on 10/04/2021). The blood glucose levels slightly decrease, but there is a significant symptomatic reduction in his complaints after the treatment. No adverse side effect was reported by patient. He was advised to continue the treatment and regular follow ups. He was also suggested to visit the hospital if he suffers any side effect or his symptoms not properly treated.

DISCUSSION

In this case study, patient was presented with uncontrolled type-2 diabetes whose diabetes care was provided through Unānī System of Medicine. The first task of the management was to select the most pressing health care issues and prioritize his medical care to address them. The details of Unānī Medicine which were given was mentioned in Table-2.

Table 2: Details of Ingredients.

Unānī Drugs	Constituents	Botanical name	Action
<i>Qurş Dhayābītus</i>	<i>Gilo</i>	<i>Tinospora cordifolia</i> ^[14,17]	<i>Muqawwī-i-Mi'da</i> (stomachic), <i>Mulayyin-i-Waram</i> (resolvent), <i>Muṣaffī-i-Dam</i> (blood purifier), <i>Qābiḍ</i> (astringent) ^[14,17,20]
	<i>Gurmar buti</i>	<i>Gymnema sylvestre</i> R.Br. ^[3,14,18]	<i>Mulayyin-i-Am'ā'</i> (laxative), <i>Mulattif</i> (demulcent), <i>Tiryāq</i> (antitode) ^[3,14,18,20]
<i>Zulāl Dhayābītus</i>	<i>Tukhm Hayāt</i>	<i>Withania coagulans</i> ^[14,22]	<i>Muqawwī-i-Mi'da</i> (stomachic) <i>Kāsir-i-Riyāh</i> (carminative) ^[14,20,22]
<i>Safūf Dārchīnī</i>	<i>Dārchīnī</i>	<i>Cinnamomum zeylanicum</i> ^[3,14,17]	<i>Muqawwī-i-Mi'da</i> (stomachic) <i>Muqawwī-i-Jigar</i> (hepatotonic), <i>Dāfi '-i-Ta'affun</i> (antiseptic), <i>Jādhīb</i> (absorbent), <i>Jālī</i> (detergent), <i>Qābiḍ</i> (astringent), <i>Mulattif</i> (demulcent) ^[3,14,17,20]
	<i>Rewand Chīnī</i>	<i>Rheum emodi</i> Wall. ^[14]	<i>Muqawwī-i-Mi'da</i> (stomachic), <i>Muqawwī-i-Jigar</i> (hepatotonic), <i>Mulayyin-i-Waram</i> (resolvent), <i>Jālī</i> (detergent) ^[14,20]
	<i>Abhal</i>	<i>Juniperus communis</i> Linn. ^[14,19]	<i>Muqawwī-i-Mi'da</i> (stomachic), <i>Mulayyin-i-Waram</i> (resolvent), <i>Qābiḍ</i> (astringent), <i>Mujaffif</i> (desiccant), <i>Muḥallil</i> (resolvent) ^[14,19,20]
	<i>Asgand</i>	<i>Withania somnifera</i> Linn. ^[14,17]	<i>Muqawwī-i-Mi'da</i> (stomachic), <i>Mulayyin-i-Waram</i> (resolvent), <i>Musakkin-i-A'sāb</i> (nervine)

			sedative) ^[14,17,20]
	<i>Mushaktarāmarshī'</i>	<i>Mentha sylvestris</i> Linn. ^[14]	<i>Kāsir-i-Riyāh</i> (carminative), <i>Mudirr-i-Bawl</i> (diuretic) ^[14,20]
Capsule <i>Sat Gilo</i>	<i>Sat Gilo</i>	<i>Tinospora cordifolia</i> ^[14,17]	<i>Muqawwī-i-Mi'da</i> (stomachic), <i>Mulayyin-i-Waram</i> (resolvent), <i>Qābiḍ</i> (astringent), <i>Muṣaffī-i-Dam</i> (blood purifier) ^[14,17,20]
	<i>Tabāshīr</i>	<i>Bambusa arundinacea</i> Roxb. ^[14]	<i>Qābiḍ</i> (astringent), <i>Mujaffif</i> (desiccant), <i>Mubarrid</i> (refrigerant) ^[14,20]
	<i>Dāna Hīl Kalān</i>	<i>Amomum subulatum</i> Roxb. ^[14,19]	<i>Muqawwī-i-Mi'da</i> (stomachic), <i>Kāsir-i-Riyāh</i> (carminative) <i>Hādim</i> (digestive) ^[14,19,20]
	<i>Bād Āvard</i>	<i>Fagonia Arabica</i> Linn. ^[14]	<i>Mulayyin-i-Waram</i> (resolvent), <i>Muṣaffī-i-Dam</i> (blood purifier) <i>Mu'arriq</i> (diaphoretic), <i>Qābiḍ</i> (astringent) ^[14,20]
Capsule <i>Asgand</i>	<i>Asgand</i>	<i>Withania somnifera</i> Linn. ^[14,17]	<i>Muqawwī-i-Mi'da</i> (stomachic), <i>Mulayyin-i-Waram</i> (resolvent), <i>Musakkin-i-A'ṣāb</i> (nervine sedative) ^[14,17,20]

He recognized that his glucose control was affected by large portions of carbohydrate rich diet, regarding that he counselled and agreed to reduce his large portion size at a time by dividing it into small 4-5 meals in a day. He advised to stop carbohydrate rich food like grains, rice, breads, potatoes and peas etc.^[3,16] For better results, diet

chart was given (Table-3). After that positive effect of regular exercise and walking on glucose control and weight reduction was also discussed with the patient^[3,10,11] and advised to follow physical activity schedule (Table-4). Weight loss would also be an important step in managing his blood glucose level.

Table 3: Diet Chart.

Allowed	Not Allowed
Fruits: Pomegranate, ^[7] Lime, ^[15] Orange, ^[15,21] Apple, Pear, ^[21] Jamun ^[3,7,15,16]	Fruits: Sugarcane, ^[15] Mangoes, Mulberry, Fig, Bananas, ^[16] Grapes, Dates ^[15,16]
Vegetables: Ladies finger, Amla, ^[3] Raddish, ^[15] Soya, Round gourd, Mustard, Cauliflower, Cucumber, ^[16] Palak, ^[15,16,21] Onion, ^[3,15,16] Methi, ^[3,16] Garlic, ^[3,6,15] Bitter gourd, ^[3,15] Pumpkin ^[16,21]	Vegetables: Potato, Peas, ^[3,15,16] Carrot, ^[15,16] Sweet potato, ^[15] Brinjal, ^[21] Beetroot ^[16]
Non-veg: Fish, ^[6,15] Chicken ^[15,16]	Non-veg: Red meat, Egg, ^[21] Organ meat ^[15,16]
Dry Fruits: Peanut, ^[15] Walnut, ^[15,16] Almonds, Pistachio ^[16]	Dry Fruit: Raisins ^[16]
Milk Products: Curd, Buttermilk ^[7,15]	Milk product: Milk, ^[7,15,16] Tea ^[7,15]
Pulses: Arhar, Mūng, ^[21] Masūr ^[6]	Cereals & grains: Rice, ^[15,21] Jav, Sago, ^[15] Bājra ^[16]
Restricted item: Jam, Squashes, Cold Drinks, Desserts, Cakes, Chocolates, Ice-creams, Sweets.	

- Recommended ratio of food items in Breakfast, Lunch and Dinner
Cereals: Dal/Fish/Chicken: Vegetable =1:1:2

Table 4: Physical Activity Schedule.

Week 1	15minutes (5mts walk, 5mts brisk, 5mts walk)	3 sessions in a week
Week 2	same as above +2mts brisk	
Week 3	same as above +2mts brisk	
Week 4	same as above +2mts brisk	4 sessions in a week

CONCLUSION

A single case of uncontrolled type-2 DM is well managed with Unānī System of Medicine. The drugs which correct the *Mizāj* (temperament) as well as restore the *Quwwat Jādhiba* (absorptive faculty) of kidney are used in the management of diabetes mellitus. The data presented here are encouraging as the combination of Unānī drugs along with dietary control and regular exercise found effective in treating uncontrolled blood sugar levels, without any support of modern medicine. We were prompted to publish this case to safe guard the

health of patient with adverse effects of modern medicine.

Strength of the study

Unānī Medicine is an opportunity for diabetic as it has no chance to become resistance, safe to use and less expensive than other medication.

Limitations of the study

As it is a single case study, further clinical studies on large samples and comparative clinical trials are needed

for proper generalization of the results and scientific validation.

Informed Consent

Details about interventions and duration of the treatment were explained to the patient and consent was obtained. The patient understand that name and initials will not be published and due efforts will be made to conceal identity, but anonymity cannot be guaranteed.

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