Drug addiction and diabetes: South Asian action

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Abstract

Both diabetes and drug addiction are common phenomena across the world. Drug abuse impacts glycaemic control in multiple ways. It becomes imperative, therefore, to share guidance on drug deaddiction in persons with diabetes. The South Asian subcontinent is home to specific forms and patterns of drug abuse. Detailed study is needed to ensure good clinical practice regarding the same. This communication provides a simple and pragmatic framework to address this issue, while calling for concerted action on drug deaddiction in South Asia.

Keywords: Deaddiction, Diabetes, Nutrition, Psychosocial care, Psychiatry, Tobacco.

Current Recommendations

The American Diabetes Association- Standards of Medical Care 2016 clearly advise all patients not to use cigarettes, other tobacco products, or e-cigarettes.[1] Smoking cessation counseling and other forms of treatment are recommended as a routine component of diabetes care. This guidance is based upon epidemiological, case-control and cohort studies, which link smoking with cardiovascular disease premature death, and microvascular disease, including foot ulcers.[2] It also notes that smoking may contribute to development of type 2 diabetes, and smoking cessation helps improve metabolic parameters, blood pressure and albuminuria.

Counselling and pharmacological therapy should be combined to achieve best results in smoking cessation. Weight gain may occur after smoking cessation, but this does not antagonize the cardiovascular benefit that accrues from cessation of smoking.[1]

Guidance on smoking in children asks for direct elicitation of smoking history at initial and follow up visits. Exposure to secondhand smoke should also be enquired into. Youth who do not smoke should be discouraged from beginning, and those who do should be encouraged to quit.[3] E-cigarettes are not recommended as an alternative to smoking. Smoking cessation counseling is also indicated as part of preconception care.[4]

Table-1: Common drugs (psychoactive substances) of abuse in South Asia.

Category	Examples
Tobacco	Cigarettes, Biri, Hooka, Clay Pipe (chilam), Churat, Gutkha, Zarda, Tobacco powder, Gul, Neswar
Alcohol	Beer, Wines, Indian Made Foreign Liquor (whiskey, vodka, rum, gin), Country liquor (Arak, Todi)
Opioids	Poppy husk (doda, bhukki), afeem (raw opium), heroin (smack), pharmaceutical opioids (codeine, buprenorphine, morphine, pentazocine),
Stimulants	Amphetamine type stimulants, methamphetamine, 3,4-Methylenedioxymethamphetamine (MDMA) (esctacy), Yaba (mixture of methamphetamine and caffeine)
Cannabis	Bhang, ganja, charas, hashish
New Psychoactive Substances (NPS)	Ketamine; Piperazines- (BZP, mcPP, TFMPP); Synthetic cathinones (Commercial or colloquial name: Bath salt-Mephedrone, Flephedrone, MDPV, Naphyrone); Synthetic cannabinoids (Commercial or colloquial name: Spice- JWH-018, JWH-073, JWH-200, CP-47,497, and (C8)-CP47,497); Plant based substances (Kratom, Salvia divinorum); Amino-indanes (Commercial or colloquial name: 'pink champagne'- 2-AI); Tryptamine (Commercial or colloquial name: 'Foxy-methoxy' or 'alpha o alpha'- 5-MeO-DMT, 5-MeO-DPT, AMT, 4-AcO-DMT); Other substances- 1,3-dimethylamylamine (DMAA)

Nutritional therapy recommendation[5] propose limits for intake of alcohol. According to these recommendations, adults with diabetes may drink in moderation (one drink/ day for women and 1-2 drinks/day for men). However, alcohol consumption may increase the risk of delayed hypoglycaemia, especially in persons on insulin or insulin secretagogues. It may also precipitate hyperglycaemia, as many 'empty calories' are consumed in the form of alcohol, and as calorie-dense snacks often accompany its use.

The South Asian Scenario

The South Asian subcontinent, however uses (or abuses) tobacco and other drugs (also referred to as psychoactive substances) in a variety of ways.[6] Tobacco can be smoked, inhaled, chewed, sniffed or absorbed buccally. The various forms of tobacco include bidis, hookah, khaini, zarda, gul and naswar various unique types of alcohol, including

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Table-2: Pharmacological and non- pharmacological interventions for management of drug (psychoactive substances) addiction.

Drug (psychoactive substances)	Pharmacological interventions#	Non- pharmacological interventions
Tobacco	First line- ◆ Nicotine Replacement Therapy (gum, patch, nasal spray, inhaler, lozenges, etc.) ◆ Bupropion- Sustained Release ◆ Varenicline Second line- ◆ Clonidine ◆ Nortryptiline	◆ Screening and Brief Interventions (SBI) ◆ Psycho-education ◆ Motivation Enhancement Therapy (Motivational Interviewing) ◆ Relapse Prevention (RP) ◆ Cognitive Behavioral Therapy (CBT) ◆ Interpersonal therapy ◆ Family therapy ◆ Group therapy
Alcohol	Short term (withdrawal) management ◆ Benzodiazepines (diazepam, lorazepam) Long term management ◆ Acamprosate ◆ Disulfiram ◆ Naltrexone	
Opioids	Short term (withdrawal) management ◆ Opioids agonists and particle agonists (Buprenorphine, methadone, etc) ◆ Clonidine, benzodiazepines, NSAIDS Long term management ◆ Buprenorphine ◆ Buprenorphine- naloxone combination ◆ Methadone ◆ Naltrexone^	
Stimulants	Symptomatic management No approved medications yet	
Cannabis	Symptomatic management No approved medications yet	
New Psychoactive Substances (NPS)	Symptomatic management No approved medications yet	

supportive care and other medications as needed (e.g. proton pump inhibitors and Thiamine for withdrawal management from alcohol
^ Long acting/ depot formulations available in some countries.

home-distilled spirits, toddy and arak are also consumed in the region. The peninsula, and its surrounding regions, also experiences "socially approved" drug abuse in the form of areca nut (supari), betel quid (paan)- chewing, and even some forms of cannabis (like bhang) and opioids (poppy tea). Hard drug abuse, including that of poppy seeds, opium, heroin, injectable pharmaceutical opioids, marijuana, and stimulants including amphetamine type stimulants (ATS) is also prevalent in the region.[7,8]

Impact of Drug Abuse on Diabetes

Drug abuse is associated with worsened metabolic control,[9,10] and a higher risk of chronic complications as well as acute metabolic decompensation. Drug abusers also have lower self-management skills, and lack motivation to improve their health.[11] Injectable drug abusers are at risk of contracting blood- borne infections such as hepatitis B and HIV,[12] which may worsen diabetic control. Some drug users may have cognitive impairment and hypoglycaemia unawareness.[10] This increases the risk of hypoglycaemia, which can be compounded by erratic dietary habits.

South Asia Centric Guidance

In such a situation, there is an imperative need to create South Asia-centric guidance for prevention and management of drug abuse. It is noteworthy that current guidelines on psychosocial care of diabetes, both from USA and India, do not offer such recommendations.

Such guidance should include detailed steps in history taking, and examination, including symptoms and signs which should prompt detailed questioning about possible drug abuse, the technique of eliciting an accurate history, and the need to perform a 360° assessment (such as enquiries from family members and other care givers). It should also list possible psychological and biomedical investigations and their indications. The frequency of follow up, and its details should be clarified. Non-pharmacological and pharmacological management strategies should be

Table-3: Pragmatic approach to drug addiction in diabetes.

AWARENESS
1. Be aware of various forms of drug abuse and drug addiction prevalent in one's area of practice.
2. Be aware of the health and metabolic risks posed by these drugs.
ENQUIRY
1. Incorporate history of drug use and abuse in routine diabetes care.
2. Maintain a non-judgmental tone while discussing drug usage.
EXPLANATION
1. Explain the association between drug abuse, poor self-care behaviour, and suboptimal health outcomes.
2. Involve family members and close others in all discussion and counseling sessions.
ACTION
1. Counsel patients who abuse drugs to stop.
2. Counsel patients who do not abuse drugs, never to begin
3. Reinforce healthy messages at each follow up.
4. Refer patients with drug addiction to a qualified psychiatrist.

shared, as should strategies to enhance adherence, maximize response, and minimize dropout. Till such consensus is available to help the physician dealing with diabetes, we suggest the following ten point guide (Table-3).

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