Diabetes Management
Dietary management series, Part 2

Vegetables for Diabetes

Reduce breakfasts of anti-diabetics drugs and boredom of dietary restrictions with wide option of your favorite vegetable dishes.

Trends Ayurveda-
Ancient wisdom-
Most common type of Diabetes (Diabetes Mellitus) is a metabolic disorder. It is either produced due to faulty dietary habits or faulty dietary practices worsens it. Hence Diet is part and parcel of its management and control. Ayurveda had explored potential of Vegetables in the management of Diabetes. Many of them are frequently proven to reduce blood sugars as well as proven good for Diabetes through current researches.

Do you know?

Are the Drugs you are supposed to put on for whole life or consuming since long safe? -they need to be safest of safe.
13 clinical studies involving more than 33,000 people showed that diabetes treatment is not only ineffective, it's dangerous as well. A 19% increase in all cause mortality and a 43% increase in cardiovascular mortality is observed by intensive glucose lowering treatment.

What can be safer than routinely and widely consumed vegetables over centuries? Food for health is unavoidable what else can be better if we pick up right food serving as medicine.

**Drug of the Issue -**
**Karavellaka**-(Bitter gourd /bitter melon)

**Latin name-**
Momordica charantia

**Hindi-** Karela

**Part used**-fruit

**Actions-**
Deepana, Pachana, Laghu, Appetizer.

**Uses-**
Over 100 studies using modern techniques have authenticated its use in diabetes and its complications (kidney damage, cataract, insulin resistance), as antibacterial (Antimicrobial) as well as antiviral agent (including HIV infection), as anthelmintic and abortifacient.

It is used in Fever, intestinal Worm infestation, Anemia, Indigestion, Stomach and duodenal Ulcers, Various types of cancers((Blood cancer, choriocarcinoma, breast cancer, skin tumor, prostatic cancer, squamous Cell carcinoma of tongue and larynx, human bladder carcinomas and Hodgkin's disease).

It is proven effective in few clinical studies on Diabetes and Various types of cancers too.

**Recipe of the issue -**
In India it is Used traditionally as

Curry-Bharawa/ bharela karela(stuffed with spices and powder of ground nut, sesame or coconut),
Karela fry (stuffed with spices, tava sabji),
Khatti karela masala sabji with gravy,
Khatti mithi karela masala sabji with gravy, fried karela flakes to crispy nature and stuffed with spices,
Karela potato sabji and many more recipe.

**Others-** Pickle, Sauce, Bhajji,

**Chikitsa-**Article of the week-

**Anti-diabetic potential of Classical Vegetables from Indian cookery**

Every 12th person among middle age is Diabetic and nearly half (47%) of total diabetic persons do not know that they are Diabetic. In year 2000, highest number of Diabetic people across the world were in India and India is
expected to be a capital of Diabetes by 2030. It is noteworthy that when around 9 ancient Ayurvedic texts were studied, it was found that around 55-100 vegetables had been mentioned in each with a total of 145 vegetables in book Ashtanga Samgraha alone. Among 38 commonly used vegetables “Prevention is better than cure” Yet, in medicine, we get few opportunities to truly prevent new diseases. And it is a big one, the prevention of diabetes!

The cure lies in a true understanding of the underlying cause and implementing simple, inexpensive lifestyle adjustments, including dietary habits.

Vegetables are among the numerous plant adjuncts tried for the treatment of diabetes mellitus.

Heavenly offered combipack for Diabetics

All these vegetables are beneficial for health in many ways. All of these Vegetables provide optimum Nutrition with less calories and carbohydrates, Vitamins, Minerals (trace elements and antioxidants) and rich with natural fiber necessary for maintenance of health.

Several among them are claimed to possess different Pharmacological actions in Ayurved and some have been proven potential for their efficacy in various diseases. Other indications of these vegetables are not mentioned here. Diet forms the mainstay in the management of diabetes mellitus, which if used judiciously as medicine, nothing would be as good as it is.

Those vegetables are mentioned here which are used traditionally at Indian subcontinents, in Ayurvedic treatment and scientifically proven as anti diabetic and beneficial in Diabetes associated disease states, through current modern research methodologies.

Karavellaka-Bitter guard/melon
(Karela)

Latin name-Momordica charantia

Part used - Fruit,
Names in - Hindi and urdu-Karela

(करेला), Bengali-Ucche, korola, Assamese-Karale, Marathi-Karale, Gujarati-Karelu, Kannad-Hagalkai, English-Hairy mordica, Telugu-Karila, Kakarakayya, Tamil: paagharkaai (பாகற்காய்), Malayalam- kayppayka, Oriya-Kalara, Manipur/North East India - "Changkha", Nepal- तीते करेला tite karela, Sri Lanka (Sinhala) -karavila

Karkotaki

Latin name- Momordica dioica Roxb.
Part used- Fruit
Names in –Hindi– Paraval, Kadave Paraval Bangali-Palata, Marathi-Padaval, Kadu padvala Gujarati-Paravalana Kannada-thonde kayi, Assamese-potol, Oriya or Bengali- poṭol) "Paror" in Maithili, "Parol" in Magahi and "Parval" in Bhojpuri, Urdu and Awadhi

Chakramarda-

(Foetid Cassia, Sickle Senna, Wild Senna, Sickle Pod, Coffee Pod)
Latin name- Cassia tora.
Part used- Leaves
Names in -Hindi- Charota, Chakvad, Chakvat. Bengali & Oriya: Chakunda Gujarati: Kawaria Marathi-
Tarota, Chakvad, Takala. Tamil: Tagarai Malayalam: Chakramandram, takara. Telugu: Chinnakasindu. Loni
Latin name-Portulaca oleracea Linn.
Part used- Leaves and stem

Names in –Hindi– Kakoda, Khekhasa, Bangali-Kakarola, Marathi-Katali, Part used- Fruit
Kartuli, 'Kartole'. Gujarati-Kadli ghisodi, Kankoda.


Koshataki (ridge / Sponge gourd)
Latin name- Luffa acutangula (Linn.) Roxb., Part Used- Fruit


Patola (pointed gourd), Latin name- Trichosanthes dioica Roxb.,
Names in –Hindi– Baingan, Bangali-Begun gaccha, Marathi-Vange Gujarati-Ringni,Kannada– badane, Tamil-Kattarikkai,

### Lashuna - Garlic
**Latin name:** *Allium sativum* Linn.,
**Part used:** Whole plant

### Bathuva
**Latin name:** *Chenopodium album-
**Part used:** Whole plant

### Methi
**Latin name:** *Trigonella foenum-graecum;
**Part used:** leaves and stem
**Names in–Hindi,** Bangali, Marathi- Gujarati, Nepali-Methi, Tamil-Venthium Malayalam-ulluva, kannad-Menthyada soppu, Telugu-Menthulu

**Other commonly used vegetables which are scientifically proven beneficial for Diabetes are as bellow–**

### Vruntak (Brinjal)
**Latin name:** *Solanum Melongena -

### Tanduleeya (Choulayee)-
**Latin name:** Amaranth Tenipolius
**Part used–** Whole plant
**Names in –Hindi– Choulayee, Marathi-Chivali,
Pappukura, Tamil-Paruppukkairai,
Kannada-Kaduoma, Malayalam-Vastuccira.

**Shobhanjana/Shigru (drum stick)**
Latin name - Moringa oleifera
Part used - legume

Names in-
Hindi - Sahjan, Marathi - Shevga, Tamil - Morunga, Murungai,
Malayalam - Muringna, Morunna, Muringa, Muringai, Muringakka (fruit), Murinna,
Telugu - Munagakaya, Mulakkaya, Mulana, Munaga, Sajana, Tella munaga

Murunkai, Malayalam-Muringa,
Morunna, Muringa, Muringai, Muringakka (fruit), Murinna,
Telugu - Munagakaya, Mulakkaya, Mulana, Munaga, Sajana, Tella munaga

Some other commonly used vegetables in India which posses scientifically proven anti diabetic properties.

**Curry leaves – Sweet neem,**
Latin name - Murraya koenigii
Part used - leaves
Names in-
Hindi - Meetha neem, Marathi - god nimba, Gujarati - Gora nimb, Mitho nimdo, Panjabi - Curry patta,
Bengali - Barsanga, Kariphulli, Assamese - Narsinghs, Bisharhari , Kannada - Karibevu, Malayalam - Karriveppilei,
Oriya - Barsan, Basango, Bhuraunga , Tamil - Karivempu, Karuveppilei, Telugu - Karepaku

**Coriander leaves**
Latin name - Coriander sativum
Part used - leaves, stem
Names in-
Hindi - Dhaniya, Bengali - Dhana, Gujarati - kothmari, libdhaba,
Marathi - Kothimbir, sambhar, Kannada - Kothambri, Kashmiri - Deaniwal,
Malayalam - Kothumpalari,
Tamil - Paruppukkirai,
Kanada - Karibevu, Malayalam - Karriveppilei,
Telugu - Dhaniyallu

**Cabbage**
Patta kobi, Gobhi, packed cabbage
Latin name - Brassica oleracea
Names in-
Bengali - bandha kopi, Hindi - बंद गोभी
Gujarati - पत्ता गोभी, patta

Some other commonly used vegetables in India which posses scientifically proven anti diabetic properties.

**Curry leaves – Sweet neem,**
Latin name - Murraya koenigii
Part used - leaves
Names in-
Hindi - Meetha neem, Marathi - god nimba, Gujarati - Gora nimb, Mitho nimdo, Panjabi - Curry patta,
Bengali - Barsanga, Kariphulli, Assamese - Narsinghs, Bisharhari , Kannada - Karibevu, Malayalam - Karriveppilei,
gobhi • Kannada: elekoso, kosuggedde • Konkani: कळे, कोसु kosu, paalle • Malayalam: muttakkoos • Manipuri: kobiful Nepali: गोबि gob • Oriya: bandha kobi Tamil: கோவிகு kovicu, முட்டைக்கோகு muttai-k-kocu • Telugu: kosu.

**Bimbi (Kanduri)**

Marathi-Tondli
Latin name: Cocinia Indica
Names in-Hindi: कुन्दरु Kunduru, Marathi: तॊंडली Tondli, Tamil: Kovai • Malayalam: Kovai • Telugu: Donda kaya • Kannada: Tondikay • Bengali: Telakucha • Oriya: Ban-kundri.

**Punarnava (Hogweed)**

Latin name: Boerhaavia diffusa Linn Pennel
Hindi Name: Names in-Hindi: Gadapurna, Lalpunarnava, Gadha kanda, Gujarati-Satodi, Vasedo, Marathi-Ghetoli, Ghetuli, Vas, Khapara, Bangali-Punarnova, Gadapushpa, Telugu-Atakamamidi,

**Tamil-Mookkaratti, Urdu-Tukhma-i-ispast, Sarai, Kannad-Komme, Assamme-Pananua, Oriya- ,Malayalam-Tavilama, Thumizhama, Tharan, Talutama, Dongri (kashmir)-, Panjabi-Mukarattai, Gurujei.**

**Mandukparni-**

Latin name: Centelia asiatica
Names in-Hindi: Brahmanamukki, Gujarati-, Marathi-Karinga, Ghol, Bangali-Thal-khuri, Telugu- Saraswati akku, Tamil-Vallarei, Kannad-Brahmi soppu, Oriya-Bhuinpataki, Duasag, chake dopa, Malayalam-, Dongri (kashmir)- Bada kuccha.

Diets rich in vegetables can markedly reduce the risk of developing Diabetes and many other disorders including complications of Diabetes too. Although
They might not used as main line of treatment but can certainly serve as supportive treatment and reduce the doses of anti diabetic drugs and check the worsening progress of the disease. As these vegetables sometimes are tested for their extracts (not used as whole or in raw fresh form or used in the form of cooked recipe), sometimes tested in animals and many times processed or cooked in to recipe, which may alter the intensity of action and up to certain extent its properties too.

Hence the claims may not hold true in case of each recipe.

Still a few studies on some antidiabetic food ingredients had proven that antidiabetic property of commonly used food ingredients doesn't get lost from traditionally processed (cooked) foods one among them carried out in Kenya on Kenyan antidiabetic food.

Suggested reading-

2. “Action of Portulaca oleracea against Streptozotocin-Induced Oxidative Stress in Experimental Diabetic Rats”, Alok Sharma1 / M. Vijayakumar2 / Ch. V. Rao3 / M.K. Unnikrishnan4 / G.D. Reddy5, Journal of Complementary and Integrative Medicine. Volume 6, Issue 1, ISSN (Online) 1 5 5 3 - 3 8 4 0 , DOI: 1 0 . 2 2 0 2 / 1 5 5 3 - 3 8 4 0 . 1 1 8 1 , January 2009.


6. “Portulaca oleracea Ameliorates Diabetic Vascular Inflammation and Endothelial Dysfunction in db/db Mice”, An_Sook Lee,1,2 Yun Jung Lee,1,2 So Min Lee,1,2 Jung Joo Yoon,1,2 Jin Sook Kim,3 Dae Gill

Acknowledgement-
Author is thankful to Prof RN Acharya, Dept of Dravyaguna Vijnan, Dr Sneha Borkar, MD Scholar and Dr Rohit Sharma, PhD Scholar, IPGT & RA, Jamnagar.
Learn by picture–

Kang,1,2 and Ho Sub Lee, Evidence-Based Complementary and Alternative Medicine Volume 2012 (2012), Article ID 741824, 9 pages.


