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The impact of manipura chakra (solar plexus chakra), agni (digestive fire) and pachaka pitta (food digestive fire) in treating diabetes mellitus

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> **Abstract**---The chakras are a portion of the subtle body which circulate energy. Manipura chakra is the third chakra of seven chakra is the home of agni, the fire element. Agni (digestive fire) and Pachaka pitta (Food digestive fire) is the energy centre for digestive function when these are out of balance which may trigger high blood sugar levels. The present review pores correlation between manipura chakra, agni and pachaka pitta in diabetes mellitus and upon balancing the manipura chakra energy by food, Aromatherapy and yoga practice will show a drastic reduction in your glucose level and treat diabetes mellitus.

Keywords---Manipura chakra, Essential oil, Pitta dosha, Diabetes.

Introduction

The original meaning of the term chakra was "wheel," and it referred to the monarchs' chariot wheels, known as cakravartins. A chakra on the human body is a spinning disc or wheel of energy that runs down the spine[1]. The chakra is thought to be the source of shakti, or life power. They're linked to a system of mental conduits known as nadis, which are similar to nerves but are more subtle. They are responsible for accepting pranic energy and transforming it[2]. The health of a person's chakras is inextricably linked to his or her physical, mental, and emotional well-being[3]. Kundalini is inextricably linked to the body's nadis and chakras. Ida, pingala, and sushumna are the three primary nadis in human

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bodies. The ida and pingala nadis pass through the left and right nostrils, respectively, and are orientated along the sushumna nadis[4]. The spiritual reflection is the kundalini's passage from muladhara to sahasara chakra. The chakras are represented by lotuses, each with its own number of petals, colour, beeja mantra, and attribute[5]. TheTantric and Yogic traditions of Hinduism and Buddhism both include the notion of Chakra. The Yoga literature primarily describes six chakras: Muladhar, Swadhisthana, Manipura, Anahata, Vishuddha, and Ajna. Some Yogic Compendia identify Sahasrara as the seventh Chakra[6]. The Manipur Chakra, also known as the Solar Plexus Chakra, is the third of seven Chakras. Hormones have a direct impact on almost all physiological functions. The chakras and their energy domain correlate to several of the ductless glands in location and function. The pancreas, which produces the hormone insulin, is the gland of the manipura chakra[7]. These Chakras are created by the autonomic nervous system and the medial division of sympathetic ganglia, according to current anatomy. The navel is where manipura found. The Manipur Chakra is thought to be the body's centre of fire, and it control several digestive problem as well as diabetics[8].

Manipura Chakra

The Manipura Chakra, also known as the Solar Plexus Chakra, is the third energy centre in the body. The Solar Plexus Chakra is four fingerbreadths above the navel. This chakra represents your personal power and self-assurance[9].

The word "Manipura" means "lustrous gem." This chakra's linked jewel or characteristics enhance the digestive system and diaphragm. It is concerned with metabolism's strength and independence[10]. The Solar Plexus element is fire. Food digestion is aided by igniting the fire at a reasonable body temperature. It depicts the colour yellow, which is associated with energy balance and brightness[11]. When the Solar Plexus Chakra is balanced, a person feels confident, self-motivated, and fulfilled. When exposed to negative energy, one may have poor self-esteem, difficulty making decisions, and a loss of control. Fatigue, overeating, excessive weight gain, particularly around the stomach, digestive system problems, and diabetes can also be symptoms of Solar Plexus imbalances.

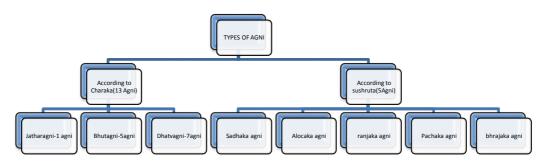
Sanskrit name	Manipura
Meaning	Lustrous gem
Sense	Sight
Psychic power	Power over heat(fire)
Body part	Stomach, pancreas, liver, diaphragm, small
	intestine
Bija Mantra associated	Ram
Music note/frequency	E/320Hz
Organ	Nadi
Planet	Sun
Position in the body	Navel

Table 1 Qualities of manipura chakra

Colour	Yellow
Element	Teja = digestive, purification
Prana	Samana
Lotus	Ten petals lotus
Animal	Ram = power, activity
Spinal contact	8 th thoracic vertebra
Symbol	Inverted triangle = awakening, unfolding

Agni (the digestive fire of health)

The digestive fire, or agni, is the biological energy that drives all metabolic processes. When we were looking at pitta dosha, we briefly learned about agni. Agni is absorbed into pitta, although they are separate entities. Agni is the enzyme that digests the food, whereas pitta is the system. It aids in the digestion of nutrients from meals and the elimination of non-essential substances. It is the glow of maximum health in the body that gives the vital essence of ojas and protects prana. Agni that is strong promotes a long and healthy life. When agni is out of balance, the metabolism suffers, food is not adequately digested, toxins accumulate in the body, and resilience and immunity are harmed[12].



Type of Agni:

Jatharagni: One agni present in the stomach and duodenum.

Bhutagni: Five agni from five basic elements.

Dhatvagni: Seven agni present, one in each of the seven dhatus (tissues).

Sadhaka agni: Ignites understanding, intellect and ideas.

Alocaka agni: Perceives visuals into images.

Ranjaka agni: Invigorate luster into the body.

Pachaka agni: Provides capacity for digestion.

Bhrajaka agni: Absorbs touch and solar energy giving of radiant skin[13][14].

PITTA

Human are warm- blooded creatures. It's stated that when there is no heat, there is no life[15]. Pitta is responsible for digestion and all metabolic activity in the body, including cellular metabolism and also produce and maintain body temperature[16]. Pitta is a type of dosha that produce heat in the body. In our physical bodies, pitta is considered to symbolise the sun[15][17]. Pitta represent the fire element is in charge of digestion, vision and intelligence[18].

Location of pitta

Pitta is primarily found in the centre of the body, between heart and navel. The digestive fire is positioned in this hot zone of the body. It includes the stomach, duodenum, small intestine and pancreas[19].

QUALITIES	MEANING
SASNEHA	Slightly oily, Unctuous
TEEKSHNA	Piercing, penetrating into deep tissues
USHNA	Hotness
LAGHU	Lightness
VISRAM	Bad smell
DRAVA	Liquidity

Table 2 Qualities of pitta dosha

Slightly oily, unctuous: To make a fire, you'll need some oil or ghee as a fuel. If you put oil on fire, it will burn hotter.

Piercing, penetrating into deep tissue: Pitta has the ability to penetrate deep tissue since it is made up of fire and water.

Hotness: All heated factors in the body, such as digestion and body temperature are influenced by pitta dosha.

Lightness: Pitta's lightness is due to the fact that is made up of water and fire components with the fire component being higher than the water component.

Bad smell: Pitta dosha is a common contributor of poor breath. Pitta is also responsible for foul odours in faeces and urine.

Fluidity, Liquidity: Pitta is characterised by fluidity and liquidity. Pitta is a liquid fuel that burn[20].

Pachaka Pitta

It is situated between stomach and large intestine (between Amashaya and Pakvsashya). Grahani (where the major part of food digestion initiated) is the name of seat where it is located. Pachaka pita is dominated by the fire element, it is referred to as Anala-fire element, Paka- the process of digestion and transformation of food. Hence it is also called as "pachakagni", the "food digestive fire" or "digestive pitta"[15][13].

Pachaka Pitta Relationship with Manipura Chakra

The energy centre associated with digestive functions is the manipura chakra, often known as the navel chakra. Since the location of pachaka pita, i.e. the intestine and the zone of heat and digestion, this chakra is intimately associated with it[15].

Corelation of Pachaka Pitta, Manipura Chakra and Diabetes

The digestive pitta subtype encompasses all digestive fluids and enzymes released by the stomach, small intestine, liver, and pancreas, as they all serve the same goal and perform the same activities. When the manipura chakra is out of balance, it might cause digestive problems. This imbalance can appear in a multitude of ways in the physical body, including diabetes[14][21].

Diabetes develops as a result of a Pachaka pitta imbalance in the body[15].

Healing of manipura chakra

Healing of Manipura Chakra through Breathing Exercise, Meditation and Asanas:

Yoga postures, also known as asanas, breathing exercises, and meditation are all effective ways to cleanse and balance the chakra system.

Sun Salutation: Sun salutations are salutes to the sun, as the name implies. Every major muscle group in the body is lengthened and strengthened in this traditional series of twelve yoga postures, which improve flexibility and strength[22].

Bellows Breath (Bhastrika): This is a means to generate heat in the body that we might overcompensate by lifting or sinking your hips too high or too low. Inhale deeply for a few seconds before lowering one knee at a time to the floor. Then, three to four times more, perform the exercise.

Meditation: Close your eyes and sit or lie down comfortably with your spine stretched. Inhale deeply and imagine a great blazing sun around your navel. Imagine this sun becoming brighter and brighter as it radiates more and more. Feel the warmth and heat of this bright light engulfing your entire body[23].

Yoga postures (Asanas): Standing side stretch, Trikonasana(Triangle pose), Ardha Chandrasana(Standing halfmoon), Phalakasana(plank pose), Desk or table Vasisthasana(side Parighasana(gate pose[24], plank), pose). top Salabhasana(Locust pose), Dhanurasana(Bow pulling pose)[25],Uddiyana Bandha(Upward abdominal pose), Virabhadrasana(Warrior pose), Viparita Virabhadrasana(Reverse warrior pose), Utthita Parsvakonasana(Extended side angle pose),Adho Mukha Svanasana(Downward facing dog pose), Purvottanasana(Inclined plane pose literal translation intense stretch of the east), Ardha matsyendrasana(Half lord of the fishes or seated twist pose) and Savasana(Corpse pose)[26].

Healing of Manipura Chakra through Aromatherapy:

The sense of smell is the most closely linked to memory of our five senses[27]. Essential oils and aromatic plants can help to balance the manipura chakra by providing physical, mental, emotional, and spiritual benefits. Aromatherapy is usually used topically or by inhalation[28].

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Essential oil for Manipura Chakra: Sandal wood, Lemon grass, Lavender, Rosemary[29], Cedarwood, Lemon, Coriander, Fennel, Clary Sage, Myrrh, Ylang, Helichrysum[30].

Healing Food for Manipura Chakra:

The fire quality is honoured by the manipura chakra. The digestive system, which includes the oesophagus, stomach, pancreas, small intestine, liver, and gall bladder, is linked to the fire system since it is responsible for transforming activities. In our bodies, the fire system lies at the centre of our physical interaction with food. The nutrients trigger a process known as metabolism, which is the total of all building and breaking down responses in the body[31].

Simple sugar-rich foods produce a rush of energy to enter the body without a corresponding continuous outflow. In fact, after consuming certain meals, a large portion of the body's digestive and metabolic resources are used to restore equilibrium. The first rush of energy from a sugary dish may feel invigorating, but when our bodies metabolise the sugar fast, we are left with a sugar-less condition. If this condition persists, it will lead to metabolic imbalance and the development of conditions such as obesity, metabolic syndrome and diabetes[32][33].

Natural sweetner support our fire system: Brown sugar, Corn sugar, Evaporated cane juice, and Honey. This sweetner that are more balance and have low glycemic index.

Low Glycemic vegetables and fruits: Apples, Berries, Broccoli, Cauliflower, Cherries, Spinach, Kale, Dandelion, Collard, Grapefruit, Green peas and Tomatoes.

Low Glycemic Legumes: Adzuki beans, Black beans, Kidney beans, Cannelloni beans, Soya beans, Mung beans and White beans.

Low Glycemic Nuts and Whole grains: Barley, High-fiber wheat tortilla, Nuts and nut butters[34][32].

Yellow Food:

While many yellow meals, especially those with a high glycemic index, should be avoided, there are some yellow, tan, or golden foods that can aid in the brightening of our fire.

Yellow Coloured Fruit support our Fire system: Bananas, Grape fruit, Lemons, Pineapple and Plantains.

Yellow Vegetables and Legumes support our Fire system: Corn, Garbanzo beans, Ginger, Lentils, Yellow bell pepper, yellow split peas, yellow string beans, yellow summer squash and Yukon gold potatoes.

Yellow Grains support our Fire system: Amaranth, Brown rice, Corn meal, Millet, Polenta, Quino, Whole grain breads, Whole grain cereals[35][32].

Blood sugar control:

When the body's glucose balance is off, it means our fire is out of balance.

Alpha-Lipoic Acid: At 600-1200mg daily, this strong antioxidant assists in glucose metabolism and has been used to increase tissue sensitivity to insulin in diabetics.

Bitter Gourd: Is a regularly consumed vegetable that can help to reduce blood sugar levels. It can be consumed as a fresh juice (50-100ml per day) or as a dry powder (3-15g per day).

Cinnamon: At 1-6g of dry powder daily has been used in the treatment of diabetes.

Fenugreek (Trigonella foenum- graecum): Its seeds have been demonstrated to lower blood sugar levels in diabetics by 1g daily in the form of an extract due to its soluble fibre content.

Gymnema: In diabetics, a 400mg extract of gymnema given daily that lowered blood sugar levels. It is considered to function by lowering sugar absorption in the gut and activating the beta cells in the pancreas that create insulin[32].

Botanical Name	Local Name	Family	Active Component	Mechanism of action
Momordica charantia(Bitter Gourd)	Pagarkay	Cucurbitaceae	Momordicine II	Lower blood sugar level
Trigonella foenum graceum(Fenugreek)	Vendayam	Fabaceae	Trigonelline	Insulin resistance
Cinnamonum zeylanicum (Cinnamon)	llayangam	Lauraceae	Cinnamaldehyde Eugenol	Increase insulin sensitivity
Gymnema sylvestre (Gymnema)	Sirukurinjan Madhunashini	Asclepidacea	Gynemicacid	Effect on sugar absorption and insulin secretion

Table 3 Family, Active component and Mechanism of action of the medicinal plants

Table 4					
Rasa, Guna,	Veerya,	Vipaka properties	of the medicinal plants		

Common Name	Rasa	Guna	Veerya	Vipaka
Bitter Gourd	Katu Tikta	Laghu Ruksha	Ushna	Katu
Fenugreek	Katu Tikta	Laghu Ruksha	Ushna	Katu

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Cinnamon	Katu Madhura	Laghu Ruksha Tikshna	Ushna	Katu
Gymnema	Kashaya Tikta	Laghu Ruksha	Ushna	Katu

Table 5 Sanskrit synonyms, Karma, Dosha of the medicinal plants

O No		17	Desta
Common Name	Sanskrit Synonmys	Karma	Dosha
Bitter Gourd	Kathillam, Sushavi,	Pittala, Krumihara,	Balance
	Kandira,	Deepani, Bhedana,	Kapha and
	Kandakatuka,	Prameha, Kasa,	Pitta
	Sukanda,	Pittasra	Increase Vata
	Ugrakanda, Katilla		
Fenugreek	Methika, Vallari,	Deepani,	Balance Vata
	Chandrika, Mantha,	Vatahara,Kaphahara,	and Kapha
	Mishrapusha,	Prameha, Aruchi	Increase Pitta
	Kairavi, Bahuparni		
Cinnamon	Tvak, Tanutvak,	Varnya,	Balance Vata
	Mukha shodhya,	Mukhashosha,	and Kapha
	Vanapriya,	Trusha, Deepani,	1
	Saimhalam,	Vishapana, Prameha,	
	Gandhavalka.	Kantashuddhi, Kara	
	Lataparna, Swarna,	,	
	Kavacha, Ramapriya,		
	ramavallabha		
Gymnema	Madhunashini,	Kushta, Meha, Kruni,	Reduce Vata
	Vishani.	Hrudya, Deepana,	and Kapha
	Meshashrungi,	Chakshushya, Dana,	and hapna
	Shrungika, Aja	Asra, Shopha,	
	shringi, Basta	Sramsanas	
	shrungi, Tiktadugha,	Stanisanas	
	Shree vruksha,		
	,		
	Bahalachakshusha,		
	Sarpadanstra,		
	Akshilbheshaja		

Discussion

The seven chakras were thought to be solely useful for spiritual development a few decades ago. Recent scientific research, on the other hand, have revealed that various regulating chakras in the human body are intimately linked to human psychology. In the human body, scientists discovered various regulatory micro networks that are intimately linked to immunity, health, mental, calm, emotions, and happiness [Schneider et al., 2019]. Manipur is the third Chakra, and it is made up of a cluster of nerves with a configuration that resembles sun rays spreading from the centre. Because the central Chakra resembles sunshine and contains ten petals that resemble the sun, it is also known as the solar plexus. The functioning of this Chakra promotes a person's dynamism, vitality, willpower,

and achievement [Jha et al., 2016]. Agni is also in charge of the phase of diabetes. The body fires are represented by Agni. When these fires are decreased, there is a potential that carbohydrate utilisation may not occur correctly, resulting in a rise in blood glucose levels [Narendra et al., 2018]. When the Manipura chakra gets blocked and weak, it affects the functioning of all of the organs and glands it regulates. The pancreas is unable to create sufficient quantities of insulin to assist our bodies in absorbing glucose and converting it to energy [Khan et al., 2021].

The pancreas and outer adrenal gland are associated with this Manipura chakra. The pancreas has two functions: digestive and hormonal. It secretes digesting enzymes and aids in the regulation of blood glucose levels through the release of insulin [Sakshi et al., 2016]. Diabetes is the result of diminished functioning of agni (digestive fire) and pachaka pitta (food digestive fire) that affect the pancreas function which may trigger high blood glucose levels. When the manipura chakra is blocked, it can lead to diabetes, so energising or unblocking the chakra with fruits, vegetables, grains, legumes, and herbs, which contain universal life force energy is seen as a gift from nature, and consuming low glycemic foods reduces the risk of high blood glucose levels. Aromatherapy may be used to balance and integrate chakras, allowing the Manipura chakras to vibrate at their highest potential. A well-tuned yoga practice can free up energy and activate the manipura chakra thereby reducing the blood glucose level.

Conclusion

The manipura chakra is out of balance because of deficiency or excess of energy. It manifests as digestive fire disorder this misalignment can manifest in the physical body in variety of ways including diabetes. Diabetes is also associated with the malfunctioning of the is chakra as the pancreas is governed by this energy centre. The manipura chakra may be balanced with yoga, aromatherapy, and healing foods, and this can assist to cure diabetes mellitus.

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