



## UNDERSTANDING OF *CHINTA TYAGA* AND STRESS AS A CAUSATIVE FACTOR OF *PRAMEHA* WITH SPECIAL REFERENCE TO DIABETES MELLITUS TYPE 2

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### ABSTRACT

In 21<sup>st</sup> century, non communicable diseases are decumbent to kill more people; diabetes mellitus is one among them. It appears to be a global epidemic due to present era of stress due to competitive lifestyle and a change in dietary habits. The prevalence of diabetes is increasing in haste day by day. India has become the diabetic capital of the world. Stress hormones in our body directly alter the glucose levels. If we are experiencing stress, our body counter and this respond is called the fight or flight response. This response levitates our hormone levels and drives the blood sugar level up. Stress hyperglycemia is a medical term referring to transient elevation of the blood glucose due to stress illness. In our *samhitas chinta tyaga* is considered as one of the major *hetu* for the manifestation of *prameha*. *Ayurvedic samprapti* profoundly indicates how vitiated *kapha* along with *meda* due to *chinta tyaga* as an individual factor, leads to formation of *Prameha*. In both the cases the equation leads to same outcome i.e Diabetes Mellitus. This paper will highlight about that how the Stress and *Achinta* both are responsible for the manifestation of *prameha*.

**KEYWORDS:** *Chinta tyaga*, Stress, *Prameha*.

### INTRODUCTION

Ancient Ayurveda manuscripts coined a term “*tyakta chinta*” as one of the major key factor for causing *prameha*.

त्यक्त्व्यायामचिन्तानां संशोधनमकुर्वताम।<sup>[1]</sup> (च.सू.१७/७९)

We need to be very active during certain emergency circumstances. Our nerves and hormones get activated in such situations. Raised activation leads to overload, the activation has to be masterly attune for us to get the job done without getting too overloaded. Up to a certain extent this is advantageous, if uncontrolled; stress sets up and leads to catastrophic effects. Compare iron for ironing clothes too hot and the clothes will get burnt. Stress has direct effects through behavior—on diabetes. A person diagnosed with type-2 diabetes is naturally stressed and worried. Stress leads to depression and depression in turn takes its toll on the victim’s self-esteem and performance level. This affects the person’s relationships, day to day activities and interests. In a nutshell his/ her approach towards life is completely toppled by this dreaded disease.<sup>[2]</sup> Any and every job, be that of a journalist or a doctor, or a farmer or any shopkeeper is stressful and need an average of 10-12

hours of an individual’s time on a day to day basis, leaving no time and will to work out. Our 24×7 routines have made stress and anxiety a part of our daily otherwise smooth lives, thus leading to this major life style disease. As Ayurveda clearly mentions “*chinta tyaga*” as one of the key factor for causing *prameha*, we also find that “stress” is a major contributing factor as per modern pathogenesis. In both the cases the equation leads to same outcome i.e. Diabetes Mellitus. Thus, here attempt has been made to see how these contradictory factors add up to same *vyadhiutpatti*.

### AIM AND OBJECTIVES

1. To understand how stress and *chinta tyaga* both lead to *Prameha*.
2. *Samprapti* of *tyakta chinta* leading to *Prameha*.
3. Pathogenesis of stress leading to Diabetes Mellitus.

### MATERIAL AND METHODS

#### ➤ Literature source

- All available literatures on *apathy nimittija madhumeha* from *samhitas* and other ancient and modern text books of *Ayurveda*.

- All available literatures on diabetes mellitus from Textbook of allied medical science, research papers, articles from different periodicals, newspaper and web material.
- **Clinical source**
- Patients are collected from OPD and IPD of Parul Ayurved Hospital, Khemdas Hospital and Parul Sevaashram Hospital
- a. Study design**
- 50 diagnosed patients of *madhumeha* will be selected according to inclusion criteria.
- Written informed consent of the patient was taken prior to case taking
- BMI was done.
  - Detailed case history of the patient was taken with the special case proforma
- b. Sample size: 50**
- c. Plan of Study**
- The study was carried out in total of 50 patients. The criteria for diagnosis was based upon clinical signs and symptoms of the disease and confirmed by Fasting Blood Sugar, Postprandial Blood Sugar and Urine Sugar. The Serum Cholesterol was also estimated in these patients. In addition Routine Urine Examination was also carried out to exclude any other pathology. The *Dhatukshayajanya* or IDDM patients and *Sahaja Madhumeha* patients, patients associated with Cardiac diseases were excluded from the study.

## RESULT

### Based on Percieved Stress Scale<sup>[5]</sup> and Chinta Tyaga Grade

**Table 1: Percieved Stress Scale.**

	NEVER	ALMOST NEVER	SOMETIMES	FAIRLY OFTEN	VERY OFTEN
In last month how often were upset because of something happened unexpectedly?	0	1	2	3	4
In last month how many time have you felt nervous?	0	1	2	3	4
In last month, how often have you felt you were unable to control the important things in our life?	0	1	2	3	4
In last month how often have you felt confident about your ability to handle your personal problem?	0	1	2	3	4
In last month how often you felt that things going your way?	0	1	2	3	4
In last month how often have you found that you could cope with all things?	0	1	2	3	4
How often able to control irritations?	0	1	2	3	4
How often have you angered because of things that were out of your control?	0	1	2	3	4
How often have you felt you were top of the things?	0	1	2	3	4
How often have you felt difficulties piling up so high that you could not over come	0	1	2	3	4

### SCORING

- Very low = 0-7
- Low = 8-11
- Average = 12-15
- High = 16-20
- Very high = 21-40

26 patients were having stress result has been shown below –

- Very Low - 0
- Low - 0
- Average -6
- High- 14

➤ Very High- 6

**Table 2: Chinta tyakta scale.**

Grade	Chinta tyakata
0	Present
1	Absent

Chinta tyakta was seen in 24 patients of whom result is below-

Absent =0

Present =24

It was observed that in 24 patients chinta tyakta was absent and in 26 patients chinta tyakta was present.

## DISCUSSION

### Samprapti According To Ayurvedic

According to Charak, chinta tyaga results to kapha pradhan tridosha dusti and Kapha Dosha, which is getting Sanchita here, is having the quality Bahudravatva. In Prakritavastha, the Kapha remains in Badha form i.e; solid or binded form, but due to Nidana Sevana its Prakrita Badhdha form changes to Dravatva form & that too in excess amount i.e. Bahudravatva. Nidana, Dosha and Dushya get combined together in such a precise way that they lead to Prakopa of Bahudrava Kapha rapidly. Then provoked Kapha gets spread all over the body owing to ShariraShaithilya. Sharira Shaithilya being one of the Anukula factors for Nidana towards the Dosha.<sup>[3]</sup> The provoked Kapha has empathy towards Bahu-Abadhha Meda due to their homogenous properties and gets lodged there. The provoked Kapha (Vikrita) after combining with Bahu-Abadhha Meda causes its vitiation, the other important

Dushyas are Sharira Kleda and Mamsa, which are already increased in large quantity, prior to vitiation of Kapha. The provoked Kapha with vitiated Meda gets combined with Sharira Kleda or Mamsa or both. Mutravaha Srotodushti due to Sharira Kleda Dushti – If vitiated Kapha and Meda come in contact with Sahrira Kleda, then it changes in Mutra, the vitiated Kapha impedes the openings of Mutravaha Srotasa, which are already filled with vitiated Meda and Kleda, thus producing the disease Prameha occurs as a result of Vriddhi Swarupa Kleda Dushti and Avila Mutrata is one of the signs of Kleda Dushti.

### Pathogenesis According To Modern

The blood sugar levels are controlled mainly by two groups of hormones. The first group of hormones reduces blood sugar but insulin is the only member of this group. The second group called counter regulatory hormones, opposes the action of insulin and increases the blood sugars. There are several of these hormones and the list include cortisol, adrelanine, noradrenaline, glucagon and growth hormone. Stress tends to increase the levels of the counter regulatory hormones, particularly cortisol, adrenaline and noradrenaline. If the levels of these hormones are persistently elevated, this can precipitate diabetes in predisposed individual or worsen the diabetes control in someone already has the disorder.<sup>[4]</sup>

### Effect of Stress Hormones on Glucose Metabolism-

Stress hormones are referred as “counter regulatory” by endocrinologists because they generally have hyperglycemic effect.

HORMONE	INSULIN	HEPATIC GLUCOSE PRODUCTION	GLUCOSE UTILISATION	BLOOD GLUCOSE
Acetylcholine	↑	↑	--	↑
Epinephrine	↑	↑	--	↑
Cortisol	--	↑	↓	↑
Beta-Endorphin	↓	--	--	↑
Growth hormone	--	--	↓	↑

## CONCLUSION

Ayurvedic samprapti profoundly indicates how vitiated kapha along with meda due to chinta tyaga as an individual factor, channel formation of prameha. What is important to understand is that stress may be an outcome from chinta tyaga or vice versa as well as i.e psychological conditions like depression, anxiety tend to create avoidance behaviour to neglect and escape to comfort which is called Procrastination. Such behaviour for long term could trigger futher stress. Stress is often observed in conjunction with the diagnosis of diabetes and it alters the glucose metabolism and the immune response. Furthermore, the disease itself is a source of stress, because it requires considerable changes in

lifestyle, thereby influencing the patient’s identity. Stress worsens diseases; diseases worsen stress: form problem complex that worsen the suffering. Delay healing and recovery. The modern finding suggests that stress is a critical issue among Diabetic patients, stress due to the disease itself should also be considered. The study concludes that chinta tyaga and stress both flip sides of coin, both individually as well as collaterally reaching the vyadhiuttpatti and as such fators deserve to be identified and managed as part of comprehensive care.

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