



RESEARCH ARTICLE

INFLUENCE OF ĀYURVEDIC LIFESTYLE, ĀHĀRA-VIHĀRA, RECOMMENDATIONS ON INCIDENCE OF HYPOTHYROIDISM AND ASSOCIATED DISORDERS

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ABSTRACT

Background: India's first nationwide thyroid health study, "The Thyroid Environment is the most Epidemiological study" revealed that 10% of the population suffers from Hypothyroidism. Drug-based treatments do not cure the condition, but palliate it, supplementing missing thyroid hormones. In contrast, Āyurveda treats the disease as an imbalance, prescribing diet and lifestyle modification, Āhāra-Vihāra, for its management. Here we report a case-series study of 13 hypothyroidism patients treated by Āhāra-Vihāra along with fresh herbal juices (Rasāhāra), and Yoga.

Aim: To identify general life-style causes of hypothyroidism, and evaluate effects of Āhāra-Vihāra treatments.

Methods: Entry data of 137 hypothyroidism patients attending four Rasāhāra clinics in the city of Bhopal was analyzed for life-style problems; health changes before, during and after life-style modification are reported for 13 representative cases.

Results: 111 had other Kaphaja and Pittaja diseases along with hypothyroidism. 100 habitually delayed eating lunch after heavy breakfasts. 61 (of 86 with data) were late risers, all causes of kapha roga. 12 out of 13 patients reduced thyroid supplements by varying amounts.

Discussion: Failure to resolve Kapha and Pitta imbalances caused by factors like delayed meal and sleeping times, and late rising and afternoon sleep, combined with suppression of Kapha and Pitta imbalance conditions may lead to Hypothyroidism.

INTRODUCTION

Hypothyroidism (HT) is one of many disorders associated with metabolic syndrome, others of which include poly-cystic ovarian syndrome (PCOS), type 2 diabetes mellitus (T2DM) and asthma. As with diabetes, hypothyroidism patient numbers are increasing all over the world. It is a fast becoming a global epidemic. As thyroid hormone levels reduce, TSH levels, intended to stimulate their production, increase. Hypothyroidism's biochemical markers are high TSH (over 5.5) and Low T3 and T4 (Biondi, 2010), Despite taking thyroxin, patients face multiple associated problems. Gradually both doses and problems increase. Various complications may arise requiring surgery, female patients may undergo hysterectomy. This may either stop reproduction, or cause ovum deformation affecting the next generation. A completely different approach is offered by *Āyurveda* which regards hypothyroidism as symptomatic of underlying physiological imbalances, due to aggravation (*pracopa*) of its *tridosha* physiological parameters *Vata*, *Pitta* and / or *Kapha Doshas*. The metabolic syndrome group of disorders is held to be originally due to imbalance in *Kapha dosha*, possibly

combined with aggravation of fatty tissue (*meda*) function (Sharma PV 1998). Indeed, major factors recognized to contribute to metabolic syndrome are obesity and adipocyte problems, such as emission of the inflammatory cytokine IL-6. In *Āyurveda*, the first corresponds to *kapha pracopa*, and the latter to *meda dhatu dushya*, adipose tissue aggravation. According to *Āyurveda*, all such regulatory imbalances arise because of continuing strain on regulatory function produced by poor quality life-style. Without adopting appropriate lifestyle changes, no imbalance can be properly resolved, so teaching patients how to live better lifestyles constitutes an important part of Ayurvedic medical practice, which therefore emphasizes the importance of understanding correct *Āhāra-Vihāra* (diet and life-style) (*Shat kriya kal* according to *Āyurveda* indianetzone.com), and adopting their considerations into one's daily routine. All lifestyle diseases can, in principle, be cured by changing lifestyle, as is suggested by the results of our study.

- Hypothyroidism increasing prevalence
- Various Complications
- Next generation suffers – ovum deforms

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Hypothyroidism is an obesity causing condition from which many females over age 20 suffer. *Āyurveda* does not define it specifically, but includes it as part of *kaphaja and pittaj roga*.

Ahara and Vihara and Yoga practices help reduce *kapha* and *Pitta* and offer a simple way to help or even cure. Hypothyroidism conditions without recourse to drugs. The general approach is to prevent miss regulation of the hypothalamus – pituitary thyroid axis, which stress disrupts via its effects on the limbic system (Medicalnewstoday.com). There are incoming patients in 4 clinics of *Rasähāra* in Bhopal. They fill all their details of daily routine in an undersigned form. They advised to change their routine according to *Āyurveda* with *Rasähāra* as their breakfast as a better food supplement. All herbal juices decreases *Kapha-Pitta* and reach of vitamin and antioxidants. Patients continue taking medicine as per doctors advise.

Prescribed juices are- *Vasa* (Vasa Ayurveda.hu/api/API), *Tulsi* (PrasunaVL, 2009), *Mulethi* (Gupta YK, Katyal J, et, al, 2009), *Haridra* (Haridra, Ayurveda.hu/api), Wheatgrass (Wigmore A, 1985), *Ghrit kumari* (Alovera) (Ayurvedic Pharmacopoeia of India), *Amalki* (Amalaki, Ayurveda.hu/api/API)

Methods: questionnaires to reporting patients

- HT emerged from medical records
- Curious spectrum of associated pathologies
- Key is *Kapha-Pitta Roga - Āyurveda*
- *Āyurveda* gives overall understanding of weakness to pathology

METHODS

- Review of medical history of reporting patients integral to work of *Rasähāra* clinics
- Information includes previous pathologies
- Hence data about primary and secondary pathologies

RESULTS

- **Data about HT:** almost never a primary pathology,
- Usually the outgrowth of previous or associated pathology
- Relative efficacy of different treatments – without explicit Iodine supplementation
- Present Table of distribution of pathologies associated with Hyperthyroid
- Why such a wide spectrum of associated disorders?

Table Caption: Table shows demographic details, status of associated problems, pathological parameters, Menses, Ahara-Vihara, Yoga and doses of medicine.

ACCOUNTS OF 13 CASES

C1-S Had taken HT medicine for 1 year, before coming to *Rasähāra* clinic. Started taking herbal juices. Stopped taking medicine. TSH increased after 6 months from 5.36 to 7.78. Started and after some time stopped taking homeopathy medicine. Continued taking *Rasähāra*, followed meal time. Did not practice much yoga. After 8 month, her TSH reduced from 7.78 to 5.38. T3 increased from 85 to 101, T4 increased from 6.9 to 8.7. She is still taking *Rasähāra*; practicing yoga regularly, but much less. She has never slept in the afternoon. Her associated problems are still the same. But frequency and intensity of allergic asthma is almost reduced to 0.

C2- SJF, 41. She maintained all her records very carefully. She came to *Rasähāra* clinic after 2 years of Hypothyroidism. She started taking *Rasähāra*, Followed meal time but not practiced Yoga. Her TSH reduced from 8.7 to 1.75. T3 increased from 84 to 124, T4 increased from 6.6 to 9.5. She stopped taking drugs (Thyroxin 50 mg). Continued taking *Rasähāra*. Her TSH increased from 1.75 to 7.1. T3 and T4 decreased from 124 and 9.5 to 65.43 and 6.7 respectively. She stopped taking *Rasähāra* and started taking the same medicine once again, Switched over to completely different lifestyle. She kept herself on raw food and juices all the day. She started eating her only meal at 7pm in evening. After 7 months her TSH increased to 12.64. T3 increased to 91.31 but T4 decreased from 6.7 to 6.6. She increased her medicine from 25 mg to 50 mg. Has now returned to *Rasähāra* + Diet and meal timings.

C3-SP F, 43. She was a patient of stricture urethra when she started taking *Rasähāra* on 09-04-13. Her TSH was 1.74 T4 was 1.04 on 17-05-12. Previously, on 12-02-13 her TSH had been 3.19 and T4, 1.16. On 01-11-13 her T4 was 1.34 and her TSH was .0072. Her doctor advised her to reduce her Thyroid medicine. Her kidney size and Uterus size are increased from L-84, R-88 to L- 86, R- 91 and Uterus size increased from 54x27x17 to 66x13x14. She lost 5 kg weight during *Rasähāra* treatment but increased her diet. She is conscientiously following meal time and practicing Yoga for an hour daily her associated problems reduced but not eliminated completely. She is still taking *Rasähāra* treatment.

C-4 MB F, 58. She had cancer of urinary bladder and went through oral chemo therapy and radio therapy before coming to the *Rasähāra* clinic. According to her doctors her survival chances were 6 months at the most. She started taking *Rasähāra* on 20-03-13. This was to help her hypothyroid, because hypothyroid patients respond poorly to wheat-grass juice given to help effects of chemo-therapy. She strictly followed meal times, and continued to do so, but practiced Yoga very little. She slept for 1 hour daily 2 hours after lunch. After 2-3 months wheat-grass was started. She reduced 10 kg weight in 9 months, but has regained 1 kg in the last 2 months. She had complained of trembling leg and hand for last 5 years that is not improved (not Parkinson's). Her TSH reduced and her T3, T4 also increased. Doctor advised to reduce her Thyroid medicine from 75 Mg to 50 Mg. Her post chemo complaints were all eliminated. She survived for 1 and half years.

C-5 MS F, 54. She had had Hypothyroidism for 5 years, because of which her menses stopped 4-5 years earlier than usual, after which she gained weight, leading her to come to the *Rasähāra* clinic. At that time her TSH was 12. She continued taking *Rasähāra* but she did not follow meal time for about 3 ½ years, although she kept practicing Yoga regularly. She started following meal time 1½ years ago. Her knee pain reduced, tanning of skin eliminated. She has not reduced her weight. Her medicine of Hypothyroidism is same since starting. On 30-10-12, her T4 and TSH was 1.17 and 2.26 respectively. It has remained stable since then.

C-6 C F, 37. When she came, she had just come to know that she had Hypothyroidism. Her T3, T4 and TSH were 105, 8.8, & 5.9 respectively. She started taking *Rasähāra* on 07-05-12 and followed meal time strictly. She did her Yoga practices on and off. On 12-09-12 she checked her T3, T4 and TSH again. It was improved, 129, 6.6, 3.88 respectively.

Table 1. Demographic details, pathological and ahara-vihara status of patients

Name	Age	Sex	Status of Rasāhāra Breakfast	Weight loss	Age of Hypo thyroidism	Frequency and Intensity of Cough/Cold/ Snoring/Tonsils	Status of Associated Diseases	Afternoon Sleep	Aahara niyama	Yoga	TSH/T3/T4	Status of Medication	Menses
1.S	41	F	Yes	13 Kg	7 Years	Reduced	Duly	No	Yes	Very less	Improved	No	Irregular
2.S J	43	F	Yes	6kg	4 years	Reduced	Reduced	1hours	Yes	Less	Duly	Duly	Normal
3.SP	56	F	Yes	5 Kg	6 Years	Reduced	Reduced	No	Yes	Less	Improved	Reduced	No
4.MB	58	F	Yes	10 Kg	6 Years	Reduced	Reduced	Yes	Yes	Reguler	Improved	Duly	No
5.M S	54	F	Yes	No	5 Years	Reduced	Reduced	Less	Yes	Reguler	Improved	Duly	No
6.Ch	37	F	Yes	1 Kg	Just Detect	Reduced	Reduced	No	Yes	Less	Improved	No	Normal
7.A H	47	F	Yes	8 Kg	16 Years	Very less	No any	2 hours rest	Following	Not reguler	Improved	Duly	Stopped 16 years back
8.K S	31	F	Yes	3Kg	5 Years	Less	No any	No	Following	Not reguler	Improved	Duly	Normal
9.V T	62	F	Yes			Reduced	Reduced	1 hour	Partially	No	Improved	Duly	-----
10.MS	42	M	Yes	7 Kg		Reduced	Duly	No	Partially	No	Improved	Duly	-----
11.A T	53	M	Yes	2 Kg	20 Years	-----	Reduced	No	Yes	No	Improved	Duly	-----
12.S J	40	F	No	1 kg	9 Years	Reduced	Reduced	½ Hours	No	Less	Duly	Duly	Irregular
13.M S	43	F	No	No	10 Years	Duly	Duly	Uncertain	Not fallowing	No	Deteriorated	Increased	Reduced

After that, she stopped taking Rasāhāra, kept following meal time and little Yoga practices. As of end of January 2014, she is still alright. C-7 AH F, 47. She was suffering from multiple problems when she came to *Rasāhāra* clinic, and started taking Rasāhāra. She had had Hypothyroidism for 14 years of 22-06-12, and her menstrual cycle had stopped when she had hypothyroidism. She is following meal time very honestly, not practicing *Yoga* regularly. She sleeps in afternoon for 2 hour daily. She reduced her weight 8 kg during two years. Her T3, T4 and TSH is now in normal range. She no longer has any associated complaints.

C-8 KS F, 31. She was asthmatic since her childhood. She was lean before 2004 when she became Hypothyroid, after which she gained 30 kg. Her Asthma became worse because of the chemical pollution of her printing press work place. She frequently had asthmatic attacks in early years. She had skin disease in feet. She started taking *Rasāhāra* on 21-09-09. She did not follow meal times nor did any Yoga practices in her first years. She continued taking *Rasāhāra* treatment on and off for nearly 3 years. Then she started practicing Yoga. She has also been following meal timings for the last 1 year. Her eczema has vanished. Her T3, T4 and TSH were 124, 8.61 and 5.75 respectively on 26-01-13. She has since lost 3 kg weight. Now, on 05-02-14, her Thyroid measures are 149.7, 17.96 and 1.05. Her doctor advised her to reduce her dose of Hypothyroidism drug.

C-9VT, male aged 62 years, reported with hypothyroidism, T2DM diabetes, and piles on 01.07.2012, smoking 40 cigarettes per day. His creatinine was at 1.59, and he also had eczema on his hands. His FBS was 143 and PPBS 178. He started *Rasāhāra* on 13-07-12. By 01.08.2012 his creatinine had reduced to 1.2 while his random blood sugar was 186. His piles and skin problems had vanished.

He then stopped taking juices from 01-11-2012. A test on 04.11.2012 showed that his FBS had reduced to 131, but his PPBS had increased slightly to 198. On 27.12.2012, he started taking juices again, and his FBS, PPBS and HbA1c have since reduced. The patient's hypothyroid problem has greatly reduced, asthma has gone, his skin is clear of eczema, and as judged by reduced swelling and heaviness in the mornings. He keeps taking *Rasāhāra*, not doing yoga practices, reduced smoking cigarettes.

C-10 MS, male aged 40, working in his own laundry up to late night, have complains of obesity (100 kg), back pain, constipation and numbness in legs. He was taking 50mg Thyroxine. His T-3, T-4 and TSH was 126, 9.3 and 11.93 respectively on the entry date 03-07-12. He started taking *Rasāhāra* and followed meal time partially. He couldn't able to change his sleep pattern because of his profession. He reduced his weight by 8 kg in 6 months. His TSH came down to 2.83, T3- 84 and T4- 9.2 accordingly. His constipation eliminated but did not get relief in back pain and numbness of feet. He then stopped taking *Rasāhāra* again increased his TSH and weight. C-11 AT, male, aged 53 yrs, reported on 07.06.2012 with insulin dependent T2DM and associated kidney failure. He had been taking 13 units insulin am + 7 units pm for 2 years + medicines in morning & evening for 20 years. He has hypothyroidism and taking Thyroxine 100 mg. His doctor was recommending dialysis twice-a-week as his creatinine level had risen to 6.7. At our clinic, he was recommended *Rasāhāra* with mud therapy. After five months treatment, on 03.11.2012, his Creatinine levels were stable at 3.9; at the same time his insulin dose was reduced to 8 units in the morning. He stopped taking other medicines completely. His T3, T4 came to normal range, TSH reduced to below range. His doctor reduced his dose to 50 mg. He as of 01.04.2013, his insulin dose was further reduced (3 units in the morning and 1 unit in evening).

Of particular interest in this case is that although the patient was completely regular in taking his main meal at 12 noon, he started taking snacks between 2 to 3 pm. When this was noted on 19.01.2013, creatinine had increased to 4.7, but reduced to 4.0 again on 21.02.2013 after he had stopped snacking. C-12, SJ, F, 38 Overweight and Asthma patient since childhood. She had an accident and injured her knee before coming to *Rasähära*. She had irregular menses. She was not able/likely doing yoga practice. She is late riser and use to take afternoon sleep. She got great relief in asthma and her menses become a bit regular after starting *Rasähära*. Her TSH, T3, T4 is not changed substantially but she reduced 1kg weight in 3 months. She then stopped taking *Rasähära* and again increased her weight, asthma and knee pain. She went through 3 knee surgeries. Yet not started *Rasähära* but feels that; it is good taking juices in mornings for her wellbeing.

C- 13, S, F43, Started taking *Rasähära* when she felt she is increasing her all problems including hypothyroidism year by year. She is Inspector of Police and have very irregular lifestyle. She have allergy of dust and it started converting to asthma. Her weight is gradually increasing. Worried of her fitness, she started taking *Rasähära* but was not able to follow *ähära-vihära* any way. She took *Rasähära* for 10 days then she had fever, cough and cold. She stopped taking *Rasähära* and went to her physician started taking medicine prescribed for fever, cough and cold. She still had dry cough and irritation in throat. After 10 days she again started taking *Rasähära*. She got relief in asthma but she started feeling swelling in her body within next month. She went to check her TSH then came to know that it is increased. She then stopped taking *Rasähära*.

DISCUSSION

- *Rasähära* treatments effective without explicit iodine supplementation
 - treatments free from side effects
 - instead of usual build up of a spectrum of drugs, complex treatment works
- Treating Kapha imbalance treats root cause of the pathology
 - Treats the physiological weakness
 - All related pathologies are Kapha
- Once a person has a *Kapha* imbalance, all pathologies are *Kapha* aggravation based
 - *Äyurveda* gives overall understanding of weakness to pathology
 - Modern medicine cannot provide the key to this
- Hence *Äyurveda* makes fundamental contributions to understanding etiology
- Interestingly, our treatments did not focus directly on the autoimmune problem, Hashimoto's thyroiditis (medicalnewstoday.com), now thought to be the main cause of hypothyroidism in India. Iodized salt being widely available, iodine deficiency is uncommon. (icuendo.org 2014). Rather, patient's overweight was treated.
- *Äyurveda* analyses physiological function in terms of three *Doshas* (holistic-online.com/images/*Äyurveda*-tn.GIF),

Vata, *Pitta* and *Kapha*, associated with three principle functions of open systems (Building bridge between *Äyurveda* and modern science INTJ *Äyurveda* Res 2010 Jan), while '*dosha* imbalances', classified according to six stages of *shadkriyakala* are considered underlying causes of all pathology (*shat kriya kal* according to *Äyurveda* indianetzone.com). Overweight represents the prime *Kapha* imbalance, so our success in treating hypothyroidism by treating overweight, though paradoxical to western thinking, is simply explained: treat underlying imbalances, and derived pathologies will resolve.

- Our data also indicated that hypothyroidism seldom, if ever, occurs as an isolated pathology. Patients usually had previous or associated pathologies, hypothyroidism representing a later development after a previous pathology had been treated or resolved. Examples are allergic asthma, and PCOS (Table 1).
- All these pathologies are associated with *Kapha-Pitta* imbalance (not only caused by overeating, but also by compromising digestion in other ways e.g. consuming cold drinks at meals, or eating large ice cream desserts, thus reducing stomach temperature). This suggests that treating and even resolving one pathology attributable to *Kapha* imbalance can easily lead to the manifestation of another pathology, also associated with *Kapha* imbalance. From the *Äyurveda* perspective, pathologies can occur in clusters, associated with the primary *dosha* imbalance. Modern endocrinology now associates all the above problems with metabolic syndrome (medicalnewstoday.com), which, being associated with obesity, has a precise correspondence. Where modern medicine and *Äyurveda* differ, is in their strategy of treatment, biomedicine treating the immediate cause of symptoms, while *Äyurveda* treats the underlying imbalance (Science experimentation and clinical practice in *Äyurveda*, p160, G Obeyesekere 1992), or root cause.
- *Vihara* is equally responsible cause of *dosha* imbalance as *Ahara*. Late rising increases *Kapha dosha* and despite of early rising, late night work increases *Pitta doshas* (Sharma PV).
- Evidently, modern medicine's strategy leads to the possibility of pathologies of the same type occurring, while *Äyurveda*'s may not. Long term improvement in some patients suggests that this may be the case, though that requires further investigation.
- Although obesity is normally considered a consequence of hypothyroidism (Thyroid and obesity an Intriguing Relationship JCEM June 2010), our treatment results suggest that it may also be an indirect cause.* Obesity-associated hypothyroidism may thus be a vicious circle when ever-increasing effects continue to strengthen the cause. *Äyurveda* points to autoimmunity being stimulated by *Äma*, attributable to poor digestion, iced drinks or ice cream consumption being possible causes worth investigating. Two *doshas* out of balance make pathologies harder to cure than a single *dosha* out of balance; the vicious cycle of imbalance seems to confirm that.

Conclusion

By comparing groups of patients having a particular pathology with apparently healthy individuals without any overt pathology, and comparing the numbers following and not following particular *Äyurveda* diet and life-style injunctions, it

becomes possible to demonstrate the value of those injunctions to the prevention of specific diseases.

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Declaration of Interest

The first author declares herself the Founder-Director of the clinics where data was gathered.

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