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RESEARCH ARTICLE

ACTION OF KANCHANAR GUGGULU IN THE MANAGEMENT OF GALGANDA (HYPOTHYROIDISM) : A REVIEW

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Abstract

Ayurveda is a system of medicine for the treatment of every disease manifested must have some certain name but it is more important to considered the dosha's and dhatus, concept of *Agnimandyata*, *srotovoradha*, we can manage the signs, symptoms and complaint according to different diseases. A lifestyle disorder mostly occurs due to lack of awareness about proper diet (*Ahara*) and way of living (*Vihar*), which manifest as diseases as a result of imbalance of Doshas. In present environmental situation endocrine disorder is a common prevailing disorder among the adults,these include diseases like Diabetes mellitus (*prameha*) and Hypothyroidism (*galganda*) have profound influence on tissue metabolism and thermogenesis all over the body. Hypothyroidism trend is increasing i.e. 15 billion in 110 plus countries globally more than 2 billion and more than 40 million in India. [**1]** All the metabolic process of the body is being controlled by metabolic factors located in the digestive tract (*Jatharagn*i). In Ayurveda, thyroid glanddisorder is correlated with *Galganda*, *Gandamala* but about the concept of hormones over production has not been mentioned clearly in the Ayurvedic text. Hence, here is an act of trying to do something to get understand the disease Hypothyroidism with *galganda* through vivid action of *KanchanarGuggulu.*

Introduction:-

In present era *Galganda* has become a major problem in our developing world. It is due to imbalance in *doshas*, *dhatus* and sedentary lifestyle may be a major cause. Approximately 200 million of the world's population are suffering from Thyroid disorders more commonly Hypothyroidism. In India, nearly 9 million cases were reported with Hypothyroidism. Prevalence of Hypothyroidism is 1:10 but increases to 5:100 when patients with subclinical Hypothyroidism are included. The female and male ratio is approximately 6:1. **[2]** It is mainly due to the deficiency in thyroid hormone. It occurs when the thyroid gland does not produce enough thyroid hormone. According to Ayurvedic classical text the function of thermogenesis and metabolism in the body is related to Agni. If any deviation occurs in the function of *Agni*this situation is called *Agnimandya*.**[3]**Hypothyroidism relate with Agnidusthi. *Galganda* can be said as to be *dhatwagnimandyaJanitVikar*. Our Ayurvedic text are full of knowledge about the disease in which *dhatwagnimandyata* is the root cause of it.

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The word *Ganda* is of masculine gender and derived from the *Gadi Dhatu* and the *AchaPratyaya*which means swelling in the neck region or enlargement of the gland of the neck**(Shabdakalpdrum)**. The ancient Ayurvedic literature is written on its own principles based onconstant observation.*Galganda* is a swelling which hangs over the region of *gala* (Neck) like *Mushka*(Rat) either big or small in size and resembles the shape of a scrotal sac.

महान्तंशोथमल्पंवाहन्मन्यागलाश्रयम्।लंबन्तंमूष्कवद्दृष्वागलगं
डंववननर्दिशेत् || **[4]**

It has been described as a disease entity of impaired *vata, kapha dosha* and the *Medodhatu* along with involvement of *Ama* and *Dhatwagnimandhyata*.

According to *Acharya Charak*: *Galganda* is a *NanatmajaKaphajaRoga*.**[5]***Adhisthana* is *Rohini* (sixth layer of the skin). *Galganda* can be compared with goiter which is associated with thyroid disorders. *AcharyaCharak* also said in *Sutrasthan* that when the vitiated *kapha*, firmly located outside the throat cause swelling slowly produce *galganda* describe under the *ShothaVikara*.**[6]**

According to *Acharya Sushruta : -Galganda*aggravatesvata and kapha in the neck region.

According to *Acharya Vagbhata* vitiated *meda* is a responsible factor for excessive pain in *galganda*.

Same words and opinions are given by different *Acharya* such as *Yogratnakara, Madhavakara, Bhoja, Vangasen* in their *samhitas* about the *galganda*.

KanchanaraGuggulu is especially indicated in *Granthi Vikar* and plays important role in balancing the *Agni*with the help of its other ingredients.In this review paper a holistic approach to evaluate the mode of action of *KanchanarGuggulu* has been tried to establish. As per Ayurvedic text, the root cause of hypothyroidism is *Agnimandata*.

Aim And Objective:-

1. To explore the mode of action of *KanchanarGuggulu* in management of *galganda*.
2. To aware about medicinal properties and to encourage the use of *KanchanarGuggulu* in the management of *galganda* (hypothyroidism)

Material And Method:-

For this study *AyurvedaSamhitas* other classical books of *Ayurveda*, authentic publications, internet and modern medical literature has been reviewed.

Drug review

Classical reference of *KanchanarGuggulu* is mentioned in *GalagandaPrakaran* of *Bhaisajyaratnavali***.**
Drugs used in the preparation of this formulation are as follows:- [**7]**

Sr. No.	Main Ingredients	Botanical Name	Matra
1.	*Kanchanara*	*Bauhinia variegate linn*	240gm
2.	*Guggulu*	*Commiphoramukullinn*	485g
3.	*Pippali*	*Piper longum linn*	50gm
4.	*Maricha*	*Piper nigrum linn*	50gm
5.	*Shunthi*	*Zingiber officinale Roscoe*	50gm
6.	*Amalaki*	*EmbelicaofficinalesGaertin*	25gm
7.	*Bibhitaki*	*Termieliabellirica(Gaertin) Roxb*	25gm

8.	*Haritaki*	*Termieliachebula*	25gm
9.	*Varuna*	*Cratena religiosa*	12gm
10.	*Tvaka (dalchini)*	*Cinnamomum verum (linn) Silva manso*	3gm
11.	*Ela*	*Elettaria cardamomum*	3gm
12.	*Tejpatra*	*Cinnamomum tamala*	3gm

Method Of Preparation:
Get the materials in the above measure,firstly triturate all the materials and sieve them to obtain a fine powder. Secondly *Triphala* decoction is prepared, and then purified *Guggulu* and fine powder of all ingredients are dissolved in the decortion of Triphala and triturate the compound properly. Finally pills are prepared measure 1 gram each, dry and preserve them in a glass bottles.**[8]**

Indication :
Galganda(hypothyroidism),*Granthi*(tumour), *apachi*, *vrana*(wound),*gulma* (abdominal lump), *kustha*(leprosy),*Bhagandara*(fissure in ano)

Matra:
1 pills (1 gram) daily morning and evening.

Anupam:
lukewarm water, decoction of *khadira* plant

Discussion:-

KanchanaraGuggulu is one of the important Ayurvedicpreparations. Properties of its ingredients according to *rasa, guna, virya, vipaka* are as follow:-

Sr.no	Ingredients	*Rasa*	*Guna*	*Virya*	*Vipaka*	*Action & Indication*
1.	*Kanchanar (Bauhinia variegate linn).[9]*	*Kasaya*	*laghu, ruksa*	*Sita*	*Katu*	*Kaphapittasamaka, anulomana, galganda*
2.	*Guggulu (Commiphoramukullinn) . [10]*	*Kasaya*	*laghu, sukshma*	*Ushna*	*Katu*	*Tridoshahara*
3.	*Pippali(Piper longum linn).[11]*	*Katu*	*Laghu, snighdha, tikshana*	*Anusnasheeta*	*Madhura*	*Kaphapittavatashamaka, agnidipana, rasayana,pacaka*
4.	*Maricha (Piper nigrum lin).[12]*	*katu,tikta*	*Laghu, tikshana, ruksha*	*Ushna*	*Katu*	*Kaphavatashamaka,agnidipan,ruchya, chedana,medohara*
5.	*Shunthi (Zingiber officinale Roscoe). [13]*	*Katu*	*Laghu, snigdha, guru*	*Ushna*	*Madhura*	*Kaphavatasamaka, bhedini, agnidipana, kanthya*
6.	*Amalaki (EmbelicaofficinalesGae*	*Amla pradhana madhura*	*Guru,ruksha, sheeta*	*Sheeta*	*Madhura*	*Tridoshahara*

	rtin). [14]	*rasa*				
7.	*Bibhitaki (Termieliabellirica(Gaertin) .Roxb) [15]*	*kasaya*	*Laghu, ruksha*	*Ushna*	*Madhura*	*Tridoshahara*
8.	*Haritaki(Termieliachebula). [16]*	*Madhura, kasaya*	*Laghu, ruksha*	*Ushna*	*Madhura*	*Tridoshahara*
9.	*Varuna(Cratena religiosa).[17]*	*Tikta, kasaya, madhura*	*Laghu, ruksha,*	*Ushna*	*Katu*	*Kaphavatashamaka, dipana, mutrala, anulomana*
10.	*Tvaka (Cinnamomum verum linn). Silva manso).[18]*	*Katu,tikta, madhura*	*Laghu, ruksha, tikshna*	*Ushna*	*Katu*	*Kaphavatashamaka, grahi, dipana*
11.	*Ela(Elettaria cardamomum). [19]*	*Madhura,katu*	*Laghu, ruksha*	*Sita*	*Madhura*	*Tridoshahara, dpana, kasaghna, kaphanisaraka*
12.	*Tejpatra (Cinnamomum tamala).[20]*	*madhura*	*Tikshna, picchila*	*Ushna*	*Katu*	*Kaphavatashamaka, Ruchya, dipana*

KanchanaraGuggulu consists of 12 ingredients viz *Kanchanara, Guggulu, Pippali, Maricha, Sunthi,Amalaki,Bibhitaki,Haritaki, Varuna, Tvak, Ela, Tejpatra.*

In these*Kanchanara (Bauhinia variegate linn.)* is a drug of choice for *Granthi Vikar, galganda* which process *anulomana* and *kapapittasamaka*properties.

Guggulu is having *tridoshahara* properties and associated with *Dipana, Pachan,Lekhana karma*. It alleviates both *vata* and *kapha* and regulates the *Agni* and help in *Srotoshodhaka*.

Drugs like *Tvak, Amalki, Bibhitaki, shunti, Ela, Tejpatra, Maricha, Pippali*provide relief in *sotha,* help in *Agnidipan, Pachan, Tridoshahar, anulomana, chedana, Ruchya*properties.

Ingredient	**Mode of action**	**References**
Kanchanara	Antimicrobial,[21] anti staphylococcal activities,[22] chelation action,[23] cytotoxic activity,[24] antioxidant activity,[25] neural activity,[26] nephroprotective activity,[27] anti-inflammatory,[28] and analgesic activity,[29]	21,22,23,24,25,26,27,28,29
Guggulu	Thyroid stimulatory activity,[30] anti-inflammatoryactivity,[31] cytotoxic activity,[32] antioxidant activity,[33] antifertility activity,[34] skin diseases,[35] Antimicrobial,[36] antihyperglycemic activity,[37]	30,31,32,33,34,35,36,37
Pippali	Antifungal activity,[38] antiamoebic activity,[39] anti	38,39,40,41,42,43,44,45,46,47,48

	asthmatic,[40] anti diabetic,[41] analgesic[42], antioxidant activity,[43] anticancer activity,[44] antidepressant,[45] antiulcer,[46] immunomodulatory,[47] hepatoprotective,[48]	
Maricha	Antihypertensive activity,[49] antiasthmatic activity,[50] antioxidant activity,[51] anticancer activity,[52] Antimicrobial,[53] hepatoprotective,[54] antidepressant,[55]analgesic[56] immunomodulatory,[57] anticonvulsant activity,[58]	49,50,51,52,53,54,55,56,57,58
Shunthi	Anti diabetic,[59] antioxidant activity,[60] anticancer,[61] antivomiting,[62] anti-inflammatory,[63] antifungal,[64] anti ulceration,[65]Antimicrobial,[66]	59,60,61,62,63,64,65,66
Amalaki	anti depressant,[67] anti-inflammatory,[68] immunomodulatory,[69] anti mutagenic,[70] anti bacterial activity,[71] cytotoxic activity,[72] anti fungal activity,[73] Hypoglycemic effect,[74] chemoprotective activity,[75]antioxidant activity,[76] anticancer activity,[77] Antiproliferative Activity,[78] wound healing action,[79] hypolipidemic agent,[80]	67,68,69,70,71,72,73,74,75,76,78,79,80
Bibhitaki	Antimicrobial,[81] hypertensive activity,[82] anticancer activity,[83] Antithrombotic and Thrombolytic activity,[84] wound healing activity,[85] immunomodulatory,[86] anti diarrhoeal activity,[87] antispasmodic and bronchodilatory activity,[88] antioxidant,[89]	81,82,83,84,85,86,87,88,89
Haritaki	Antimutagenicanticarcinogenic activity,[90] hepatoprotective,(91] cardioprotective,[92] anti diabetic activity, [93] anti arthritic,[94], anti ulcerogenic activity,[95] antioxidant,[96] anti microbial,[97] anti anaphylactic effect,[98]anticaries,[99]immunomodulatory,[100] antibacterial,[101] anti viral activity.[102]	91,92,93,94,95,96,97,98,99,100,101,102
Varuna	Antioxidant,[103] Anticancer activity,[104] antimicrobial,[105] anti inflammatory activity, [106] anti diabetic,[107]	103,104,105,106,107
Tvaka (dalchini)	*A.* antimicrobial,[108]Anti-HIV Activity,[109], Antioxidant,[110] anticancer activity,[111] anti diabetic,[112]wound healing activity,[113] anti-inflammatory,[114]Spasmolytic and Cardiovascular Activity, [115] anti anxiety and antidepressant,[116] anti Parkinson activity,[117]	108,109,110,111,112,113,114,115,116,117
Ela	Anti-inflammatory,[118]analgesic activity,[119] neuropharmacological assessement,[120] insecticidal,[121] antihelmintic activity,[122] laxative activity.[123]	118,119,120,121,122,123
Tejpatra	antimicrobial,[124] Antioxidant,[125] anti diabetic[126], hypolipidemic activity,[127] anti-inflammatory,[128]	124,125,126,127,128,129,130,13

	antiparasitic,[129]analgesic,[130]antipyretic,[131]antihelmintic activity,[132]	1,132

Conclusion:-

Hypothyroidism can be correlated with *Agnimandyagalganda*, *kaphananatmajaVikara*, all are explained in Ayurvedic classical text,*Kanchanarguggulu* is mentioned in *galgandaprakaranofBhaisajyaratnavali*. It has *deepan, pachan,lekhanaBhedini, tridoshahara* properties so it is very useful in *galganda, gulma, apachi, vrana, kustha, granthi*. It also found to be helpful in regulating appetitesbalancing *Agni* and bowel habits.

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