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Case Study

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THYROID GLAND DISORDERS IN CHILDREN AND IT's MANAGEMENT THROUGH AYURVEDA

Dr. Shankar Lal Verma[1]*, Dr. Peeyush Pareek[2], Dr. Jitendra Kumar Sharma[3], Dr. Purushottam Das Sharma[4], Dr. Dinesh Kumar Sharma[5] and Dr. Deepa[6]

[1,2]P.G. Scholar, P.G. Dept. of Rachana Sharir, MMM Govt. Ayurved College, Udaipur, Rajasthan.
[3]Professor & H.O.D., P.G. Dept. of Rachana Sharir, MMM Govt. Ayurved College, Udaipur, Rajasthan.
[4]Associate Professor, P.G. Department of Rachana Sharir, MMM Govt. Ayurved College, Udaipur, Rajasthan.
[5,6]Assistant Professor, P.G. Department of Rachana Sharir, MMM Govt. Ayurved College, Udaipur, Rajasthan.

***Corresponding Author: Dr. Shankar Lal Verma**

P.G. Scholar, P.G. Dept. of Rachana Sharir, MMM Govt. Ayurved College, Udaipur, Rajasthan.

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ABSTRACT

Hypothyroidism is emerging as a common health concern in India as well as worldwide. An autoimmune cause accounts for approximately 90% of adult hypothyroidism mostly due to Hashimoto's disease. In Ayurveda, autoimmune disease can be compared with Dhatugata Ama with vitiation of Tridosha. This study aimed to access the efficacy of Ayurvedic management including Shodhana Karma in hypothyroidism in pediatric age. It is a single case study. A 15-year female child has already been diagnosed with hypothyroidism since 6 years proceed to the Ayurvedic hospital. And she was treated with Virechana Karma followed by internal medications. Laboratory investigations were carried out after treatment with satisfactory outcome.

KEYWORDS Hypothyroidism, Shodhana Karma, Virechana Karma, Shamana Chikitsa.

INTRODUCTION

Congenital hypothyroidism (CH) occurs in 1 in 1500 to 3000 newborns.[1] Early diagnosis and treatment of thyroid hormone deficiency is crucial to ensure normal development and cognition. Screening for CH is part of all newborn screening programs in the United States, as well as most developed countries.[2,3] The most common cause of primary CH is thyroid dysgenesis, which explains 80% to 85% of all cases, followed by defects in thyroid hormone biosynthesis or secretion known as thyroid dyshormonogenesis.[4] Central hypothyroidism occurs less frequently and is often associated with additional pituitary hormone deficiencies. Infants with multiple pituitary hormone deficiencies often present with hypoglycemia, cholestatic hepatitis,microphallus, and ocular abnormalities.[5,6] Exogenous or environmental etiologies of CH include maternal thyrotropin receptor blocking antibodies, antithyroid drug use, and iodine deficiency or excess.[7-12]

CASE REPORT

A female patient of 15 years old, female child came to OPD of kaumarbhritya department hospital with chief complaints of weakness, lethargy, puffiness of face, hoarseness of voice, loss of hair, weight gain, poor memory, etc. since one year. After taking proper history, the patient was done for investigations of bloodHb%, Ayurveda (Ac fasting blood sugar, total lipid profile, T3, T4, TSH etc. After seeing the report, the patient was diagnosed as hypothyroidism. The patient was first diagnosed here. Since her TSH was 9.51mIU/mland T3 and T4 was within its normal limits. After diagnosis the patient, herself was interested for Ayurvedic treatment. She had no family history for similar conditions and no significant past history. She also had no any history of hypertension, diabetes, cardiac problem or any other complicated diseases.

Treatment given

1) Kanchanar guggulu 250 mg BD
2) Trikatu churna 1gm BD with koshna jala
3) Vidanga churna 1gm BD with koshna jala

4)Virechana Karma

1. Snehapana with Panchatikta Ghrita was started in dose of 40 ml twice a day on 1st day, in increasing order with addition of 15 ml each day till Sneha Siddhi Lakshana were obtained. Sneha Siddhi Lakshana was found at 85 ml twice a day on the 4th day.
2. After Samyaka Snehapana, Sarvanga Abhyanga with Narayana Taila and Bashpa Swedana were performed for 3 days.
3. Virechana Karma was planned with Eranda Sneha - 40 ml. The patient got 20 Virechana Vega.

4. Sansarjana Krama was followed for 3 days.
B. After the completion of Virechana Karma, the following treatment was given for 3 weeks.

OBSERVATION

	Before treatment	After treatment
T3	0.6 ng/ml	0.8 ng/ml
T4	4.5 mcg/dl	5.2mcg/dl
TSH	9.51mIU/ml	5.3mIU/ml

DISCUSSION

Probable Mode of Action of Trial Drugs

Hypothyroidism mainly occurs due to vitiation of Vata and Kapha doshas. This vitiated doshas derrange the Jatharagni (digestive enzymes etc.), ultimately leading to the production of Ama and lastly vitiates Meda dhatu. This Ama blocks the channels (Srotorodha) in the body. Lethargy, fatigue, weight gain, weakness and glandular enlargement etc. symptoms are mainly occurred due to accumulation of Kapha and Meda dhatu; srotorodh, constipation and muscle pain. loss of libido, amenorrhoea etc. mainly seen due to vitiated Vata dosha by Avarana. The primary ingredients of Kanchanar Guggulu are Guggulu (50%) and Kanchanar (25%). Kanchanar is a valuable plant, used since ancient times for reducing growths on the body and for strengthening the glandular system. It has ruksha (dry), laghu (light) gunas, kasaya rasa (astringent taste), katu vipaka (pungent in post digestive taste) but its prabhava (special effect) is gandamalanashan (effective in cervical lymphadenitis, thyroid and glandular enlargements etc.). Kanchanara has great ability to dry up the vitiated Kapha and Meda because of its potent astringent property. Its grahi (enhancing absorption) property helps to remove excess fluid from swollen tissues. It helps correct the thyroid imbalance by removing Kapha in the body. It is considered as a drug of choice for all kinds of Granthi vikara (glandular diseases) and Galaganda in Ayurveda (Acharya Priya Vritt Sharma, 2006). Guggul is said to be the best vata and medohara (hypolipidaemic) drug in Ayurveda. It has ruksha, laghu and sukshma (minute) gunas, usna virya (hot potency), katu vipaka and lekhana (scraping properties having thermogenic activity) property, so it is effective in the management of Kapha-medas predominant disorders in hypothyroidism. So it helps to reduce excessive body weight. Overall, Kanchnar Guggulu sub sides the Kapha and Meda dushti and helps to reduce the swelling in thyroid gland and also supports the jatharagni. It helps to reduce or break down the deep seated Kapha dosha and Meda dhatu and clears the obstruction of channels (srotorodha). By this way, it restores the functions of this gland, prevent weight gain, and puffiness of the face; corrects hoarseness of voice, menstrual abnormalities and constipation caused due to hypothyroidism. It also helps to reduce joint pains, muscle weakness, stiffness and pain associated with this disease. Vidanga possesses ruksha, laghu, tikshna, ushna, deepan, lekhana, vatanulomana and Vatakaphashamak properties. Hence, it breaks Kapha-meda disorders and corrects Ama, clears srotorodha and subside avarana of vata dosha in hypothyroidism. Vidanga promoted as a weight loss agent that supposedly enhances thyroid function. Trikatu is predominantly having usna, tikshna, ruksha, laghu guna, katu rasa, katu vipaka & uşna virya. Hence it exhibits kapha- vata shamaka, deepana, pachana, srotovishodhana & shothahara properties. Hence it improves the Agni (digestive fire) and helps in the removal of Aama (toxins) from the body, breaks Meda dhatu and clears channel in hypothyroidism.

Hypothyroidism is mostly caused by chronic autoimmune thyroiditis, and was observed more commonly in girls. Autoimmune process can consider under the broad heading of Dhatugata Ama with vitiation of Tridosha. Shodhana Karma is required for Samprapti Vighatana. Virechana Karma leads to Srotasa Shuddhi, removal of Sanga from Srotasa and is responsible for Dhatvagni Deepana.

CONCLUSION

The results of the aforementioned study make it evident that Kanchanar guggulu, Trikatu churna, and Vidanga churna are effective when used in combination to treat primary hypothyroidism without any obvious signs of side effects or complications. In this instance, the medication's effects were encouraging. For a more accurate assessment, more results need to be examined in the early stages of the disease.as demonstrated by this case study, Panchkarma therapy for the treatment of hypothyroidism, it is essential.

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