

“ANALYSIS OF THE EFFECT OF SWARNAMRUTHA PRASHANA IN CHILDREN WITH RECURRENT UPPER RESPIRATORY TRACT INFECTIONS”

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ABSTRACT

A very common clinical conditions is upper respiratory tract infections which disturbs child daily activities. Upper respiratory tract is leading cause of childhood mortality and morbidity. The diseases of upper respiratory tract infections mainly involves fever, sore throat, tonsillitis etc. Swarnamrutha prashana is a technique in administering gold to a child to promote its immunity and intellect so that it can grow healthy without any diseases. It has been further mentioned that if swarnamrutha prashana is taken daily for a month child will become extremely intelligent and does not suffer from frequent diseases. Considering these views the present study was planned. In present study registered children were administered with soft gel capsules of swarnamrutha prashana once daily in empty stomach (morning) for a period of 90 days after availing detailed history, clinical examinations and collection of before treatment blood samples as per case report format. After completing 90 days of intervention patients were followed for another 90 days without intervention and on 180th day children were assessed for subjective and objective parameters.

Keywords: Swarnamrutha prashana, upper respiratory tract infections, Immunity.

INTRODUCTION

Research is the fact explored on the basis of hypothesis. Recurrent upper respiratory tract infections are the common problem among all groups.

As classical claim is enhancement of immunity by continuous administration of swarnaprashana for 3 months (masath parama medhavi vyadhibhishca na drushyate....), the present study was planned to explore the same in 30 children of age group 3 to 6 years with upper respiratory tract infections in and around Hassan city.. In present study registered children were administered with soft gel capsules of swarnamruthaprashana once daily in empty stomach (morning) for a period of 90 days after availing detailed history, clinical examinations and collection of before treatment blood samples as per case report format. After completing 90 days of intervention patients were followed for another 90 days without intervention and on 180th day children were assessed for subjective and objective parameters.

OBJECTIVES

To clinically evaluate the effectiveness of swarnamrutha prashana in recurrent upper respiratory tract infections in children between the age group of 3 to 6 years.

MATERIAL AND METHODS

Patients presenting with the classical features of upper respiratory infections between the age group of 3 to 6 years irrespective of sex were selected. In this clinical study patients were administered swarnamrutha capsules (One Soft Gel Capsule Containing 2mg Of Swarna bhasma) Is effective In Upper Respiratory Tract Infections In Children Between The Age Group 3 TO 6 Years.

Selection of Treatment Modality

While treating the upper respiratory tract infections, special attention should be given to the recurrence and duration of the illness, because the URTI are recurrent and hence disturbs the daily activities of the children. Following points need better consideration during the treatment fixation.

- Repeated attack of disease when exposed to the nidana are the chief problem which manifest as various signs and symptoms.
- Long standing and recurrence nature of the disease, puts the patient in immuno-compromised state.
- Patient will be in a physically ill due to the symptoms like sneezing, fever, nasal congestion, galashotha heaviness in head, sleep disturbance etc, which ultimately cut short the working capacity of the children.

By considering all these factors this study gives a conclusion that the approach should be to

- 1) Promote the immunity of the patient and
- 2) Prevent the recurrence and reduce the duration of the illness
- 3) Improve the nutritional status of the children
- 4) Promote the physical and mental health of the patient.

Discussion on demographical observations:

Age: The disease is extremely common, although prevalence depends critically up on the age, and geographical locations. Even though there is no much variation in the incidence of age in present clinical study, the minimum age of the patient registered for this study was 3 years and the maximum was 6 years. Out of which 76.67% of the patients were in the age group of 5-6 yrs. So this study coincides with the previous research data stating, "Peak age of distribution is in children and most patients develop symptoms by age 3-6 years".

Sex: In the present clinical study it was observed that the incidence of sex have no much role and this data showing equal distribution among males and females proves the statement stating that; "the prevalence is approximately equal between men and women"

Religion: Maximum number of patients belonged to Hindu community. This might be due to Hindu's residing here are more in number. Hence, has no research significance.

Diet: Maximum number of patients (70%) had the habit of taking all kind of kaphaja items. This might be one of the reasons to produce upper respiratory tract infections in these patients. Hence, proving kaphaja and Guru Ahara is one of the Nidana to cause upper respiratory tract infections.

Discussion on Clinical features**Kasa(cough)**

It is observed that, Kasa was present in all patients (100%). In 53.3% it was moderate and in 20% it was severe. This indicates that kasa is one of the cardinal complaint in URTI in children.

In most of the patients kasa was seen when exposed to dust, mist, wind, and smoke. This is due to histamine release acting through reflex action of body to expel out the unnatural and irritating substances.

Galashotha(Throat Congestion)

Galashotha was found in 90% of patients out of that 60% had pain while swallowing with congestion and 30% had throat pain with congestion. These types of congestion are seen in URTI in children, due to the response of seromucous glands to mast cells mediators.

Sleep Disturbance

Sleep disturbance was found in 83.4% of patients out of that 46.7% had intermittent sleep disturbance and 36.7% sleep was always disturbed. The sleep disturbance might be because of cough, nasal blockage, pain and irritation in throat.

Fever

Fever was found in 63.3% of patients out of that 10% was having high fever and 53.3% was having moderate fever. Fever can be considered as associated complaints commonly seen in URTI.

MODE OF ACTION OF THE DRUG:

Swarnamrithaprashana is a modified form of Swarnaprashana. Swarnaprashana as described in Kashyapa Samhita consists of administration of Swarna with Madhu and Ghritha, Whereas in Swarnamrithaprashana, amruthadi ghritha is used instead of plain ghritha. Ingredients of amruthadi ghritha are described earlier in drug review.

Swarna (Gold): In present formulation of swarnamrithaprashana gold is used in the form of swarnabhasma which contains elemental gold in the form of nanoparticles. These nanoparticles of gold get absorbed into the circulation when given through oral route. Pharmacodynamic properties of Swarnabhasma include Madhura rasa, Madhura vipaka, Sheeta veerya, Laghu-Snigdha guna. Its having functions like Balya (Improves strength), Rasayana (Rejuvenative), Ojovardhaka (Improves immunity), vrushya Varnya (improves complexion), Deepana (improves digestion), Swasa-kasa hara (Helps in curing respiratory ailments), Brimhana (Increases body mass) and Sarva vishapaha (clears all toxins and allergies). Swarna bhasma has proven nootropic activity at various levels of brain functions like intelligence, memory and concentration which is supported by recent studies

Madhu: Honey is produced from nectar of multiple flowers by honey bees. Honey is considered one among dietary agent since ancient era. Caloric value of honey is high and is good source of Vitamin B complex, Vitamin C, Elements like Calcium, Iron, Magnesium, Phosphorus, Potassium, Sodium and Zinc. The pharmacodynamics properties include Madhura-Kashaya

Rasa, Laghu-Rooksha guna, Sheetha Veerya, Madhura Vipaka and Yogavahi. It is hailed for its yogavahi (vehicle which carries drug to the target site by its penetrative action) property. It is having functions like deepana, varnya, Swarya and prasadana. Recent researches also highlight the role of honey in inhibition of mast cell degranulation in the course of respiratory allergies^v. Continuous administration of honey, which contains different varieties of allergens in the form of pollens collected from different flowers, which provide tolerance towards these allergens and prevent immune hyper responsiveness on future encounters of

aeroallergens^{vi}. Thus honey may have a synergistic role along with Swarna bhasma role in reduction of recurrence of infection in present study.

Amritadi Ghritha: Ghritha contains Madhura Rasa, Madhura Vipaka, Mrudu- Snigdha-Guru guna. It has functions like Vata-pittahara, Kapha Vardhaka (Prakrita kapha), Medhya, Swarya, Deepna, Oja-teja-bala and ayushya vridhikara, Vrushya, Vayastapana and Rakshoghna. Samskarasyanuvarthana guna of ghritha helps in imbibing properties of other drugs used in the preparation of amritadi ghritha^{vii}. Ingredients of amritadi ghritha are known nootropic agents^{viii}. These when processed with ghee, it helps in better transport across biological membranes including blood brain barrier^{ix}.

CONCLUSION

The trial drug Swarnamrutha Prashana Capsule is effective in treating the recurrent infections in children along with improving Vyadhi^xshamatva and thereby helpful in preventing its recurrence. The overall effect was statistically highly significant. The following additional conclusions can be drawn based on the observations of present study, that the Swarnamrutha Prashana^{Kasahara} was statistically significant.

- It is better effective in reducing the duration and frequency of attacks.
- It helped in general health which was depicted by height and weight of children.
- It also helped on objective parameters like increase in Hb%, TLC% and ESR.

Suggestions for future studies:

The following are the possible considerations for future studies of similar kind.

- Study is limited to single geographical area so the study could not be generalized for the whole population.
- It can be done on large samples.
- More biochemical parameters such as immune-profile could be more elaborative.

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