

An Ayurvedic perspective of commonly occurring *Urdhwajatrugat Vikar* (ENT disorders) in paediatric age group and its preventive immune measures: an observational study.

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Abstract

Background: ENT diseases are very common amongst paediatric age group especially Acute Tonsillitis, Acute Otitis media, Allergic and Infective rhinitis, Pharyngitis etc. Under nutrition, malnutrition, bad eating habits, low immunity power, poor hygiene condition, low socioeconomic status all these factors are responsible for increasing incidence and prevalence of ENT disorders in children. **Material and methods:** In above mentioned ENT disorder preventive immune measures mentioned in *Dincharya* i.e. (daily regime) like *Karnapuran* (Instillation of oil in ear), *Nasya* (instillation of oil in nose), *Kawal* (oral rinse) and *Gandoosh* (Holding fluid inside the mouth) procedure if done regularly as well as *Suvarnaprashan* (oral administration medicated ghee, herbs and gold), nutritious diet, maintain proper hygiene, *Yoga* and *Pranayam* will be definitely helpful in preventing these diseases and also boost up immunity. **Result:** Commonly occurring ENT diseases in

children are acute otitis media, Allergic infective rhinitis, Acute Tonsillitis and *pharyngitis*. **Conclusion:** This study provides basic information and its preventive immune measure for boosting immunity power and prevention.

Keyword: ENT diseases, children, socioeconomic status, immune measure.

Introduction: Ear, Nose, Throat, (ENT) diseases such as Acute Otitis media, Allergic and Infective rhinitis, Acute Tonsillitis, Pharyngitis as well as nutritional deficiency eye disorder are very common amongst paediatric age group for which parents and children have frequently visited to ENT specialist. India is the second most populated country in the world with 35 % of the total population comprising paediatric age group. In comparison with ENT disorder in adults, ENT disorders are more common among children. There are many causes which causes common ENT disorders in children i.e. anatomical structure (wider and horizontal

Eustachian tube), immunological status (under developed immunity), poor nutritional status (malnutrition), bad eating habits, poor hygienic condition, lower socioeconomic condition all these factors are responsible for commonly occurring ENT disorder in children. This study was conducted in ENT opd and observed that common occurring ENT disorder are acute otitis media which leads to perforation of tympanic

membrane and conductive hearing loss, allergic and infective rhinitis are very common as nasal disorder and acute tonsillitis and pharyngitis are common in throat disorders which leads to *peritonsillar* abscess .

Aim of study:-To study commonly occurring ENT diseases and its immune measures accordingly.

Material and methods:-

Table 1- Commonly occurring *Urdhwajatrugatvikar* (ENT disorder) in paediatric population commonly seen are as follows.

Sr. no.	Name of diseases	Symptoms	Commonly occurring age
1	Acute <i>Suppurative otitis media</i>	Fullness in ear, pain, deafness, Tinnitus, fever, malaise	More common in children (3 to 15 years)
2	Paediatric hearing loss	Children with profound or total deafness fails to develop speech and often termed as deaf – mute or deaf and dumb.	Upto 5 years
3	Acute <i>otitis externa</i>	Pain, <i>otorrhoea</i> , deafness, tinnitus, itching,	2 years to 10 years
4	<i>Otomycosis</i>	Pain, <i>otorrhoea</i> , deafness, itching,	5 years to 10 years
5	Wax	Pain, <i>otorrhoea</i> , deafness, tinnitus, itching, giddiness	2 years to 15 years
6	Rhinitis	Burning in nasopharynx, irritation and dryness, sneezing, rhinorrhoea, blocking of the nose , anosmia	5 years to 15 years
7	Allergic Rhinitis	Irritation in the nose, sneezing, <i>rhinorrhoea</i> , nasal obstruction, <i>anosmia</i> , headache.	5 years to 15 years
8	Infective Rhinitis	Rhinorrhoea, sticky white or yellowish discharge	6 years to 12 years
9	Nasal polyps	Blocking of nose, sneezing, discharge, expansion of nose, anosmia	10 years to 15 years
10	Sinusitis	Discomfort in the nasopharyngeal region, pain, nasal discharge, blocking of nose, headache, dry	After the age of 5 years

		cough,	
11	Stomatitis	Ulcers on mucosa of oral cavity, painful lesion	Common in children
12	Acute Tonsillitis	Raw sensation in throat, pain, refusal to eat, voice may be thick, malaise, fever, headache	Up to the age 15 years
13	Adenoids	Nasal obstruction, adenoid facies, mouth remains open, chest becomes flattened, voice becomes flat and toneless	Usually occurs between the age 3 years 10 years
14	Laryngitis	Hoarseness of voice, feeling of rawness, pain, cough, fever	Occurs at all age but may take serious turn in children.
15	Nutritional deficiency eye disorder	Night blindness, conjunctival xerosis, keratomalacia, Bitot's spot	Commonly occurs in children of age 3 years to 15 years.

Above observation done in ENT opd for 6 months and it is observed that most commonly occurring diseases i.e. listed above are due to low immunity power in children because word immunity itself means the state of protection from infectious diseases. Another one cause is malnourished children have increased risk of dying from infectious diseases. The increased susceptibility to infections may be caused by impairment of immune function by malnutrition. In children innate immunity from mother protect children for some months and adaptive immune system yet to be develop. Hence immunity plays important role in all above infectious diseases. Lower socioeconomic status, bad eating habits, poor hygiene during perinatal period will have negative alterations in immune programming resulting in increased risk of infection during infancy and infectious and inflammatory diseases later in life. Therefore these findings highlight the importance of adequate and appropriate nutrition during the prenatal

period and early years of life for boosting up immune system is very important.

Therefore in Ayurvedic text well explained *Dincharya* (daily regime), *Nishacharya* (night regime), *Ritucharya* (seasonal regime), *aahar* (diet), *vihar* (lifestyle), *vyayam* (Exercise) for the prevention of diseases and restoration of good health.

Ayurveda is divided into 8 major branches known as *Ashtang Ayurved* (Eight branches of *Ayurveda*). These branches are 1) *Kayachikitsa* (internal medicine) 2) *Kaumarbhritya* (Pediatrics Treatment) 3) *Grahachikitsa* (Psychiatry) 4) *Urdhwangchikitsa* (Treatment of Ear, nose, Throat, eyes and Head related diseases) 5) *Shalyatantra* (Surgery) 6) *Agadtantra* (Toxicology) 7) *Rasayan* (Geriatrics) (8) *Vajikaran*. (Aphrodisiac Therapy) In these 8 branches *Urdhwang Chikitsa* means *shalakyatantra* deals with ear, nose, throat and eye. Therefore, it belongs to Otorhino-laryngology (ENT) and

ophthalmology as per modern medical science.

So here are some preventive and immune measures for preventing ENT diseases from frequently recurring infections.

1) *Dincharya*:-

Follow the daily regimen for maintenance of normal health, which increases the strength of *Indriyas* (sense organ) and for increase the strength of body. There are some daily regime procedure for the prevention of *Urdhwajatrugatvikar*-

▪ *Nasya:- PratimarshNasya*

“*Nasyenrogashamyantinaranamurdhwaj atrujaha*”

Su. Chi. 40/54

Nasya cures the diseases of organ above shoulder of human being get relieved. Instillation of oil in nose avoids the entry of dust particles into the nasal tract. The olfactory nerve endings are seen on cribriform plate of ethmoid bone. *Nasyadravyas* triggers the nerve ending and send the message to the CNS because of this the organ of above shoulder keeps healthy.

Kawal and Gandoosh:-

It prevent and cures the oral cavity and throat disorders. Because of *Kavala* and *Gandoosh* procedure circulation of oral cavity improves. Gargling procedure of *Kavala* poses the massaging effect over the oral mucosa and strengthen the muscles of cheek and facial organ.

Abhyanga (Oil Massage) :-1) Sarvanga Abhyanga:-

for the prevention of several disease in childhood and maintenance of positive health massage with oil should be performed daily. The specific areas for *Abhyanga* on which oil massage should

be performed daily are *Shira* (head), *Shravan* (ear) and *Pada* (foot) The *Taila* (oil) used for *Abhyanga* nourishes the tissues, provides strength, and increases *Agni*. In *Ayurveda* well explained about *Marma* (Vital Energy) i.e. vital points, in that *Prana* (energy) resides. By doing massage to vital points gets stimulated and produce positive energy, therefore protecting, rejuvenating and increasing the immunity against environmental and climatic changes.

2) *Shirobhyanga (Head Massage):-*

Shiroabhyanga eliminates diseases of head. Makes hairs grows well, soft, long, thick, *Snigdha* and black, rejuvenates the *Indriyas*, induces good sleep.

3) *Karnapurana:-*

Karnapurana with oil prevents the diseases of Ear. It prevents the diseases of *Hanu* (Chin), *Manya* (Neck region), *Shira* (Head) and *Karnashoola* (Earache). Daily instillation of oil in ear helps to keep away from *VatajKarnaroga*.

4) *Padabhyanga (Foot massage with oil):-*

Padabhyanga with oil or *Goghrit* prevents the eye disorders. *Padabhyanga* is advised good for sleep disorder, good for vision, removes fatigue, useful in numbness of feet and softens the feet.

2) *Ritucharya :-*

If one follow the regimens prescribed under each and every *Ritu* (season) such person never gets inflicted with seasonal diseases and he always remains healthy.

3) *Aahar :-*

Ayurveda suggest diet regimen for children to maintain normal physiological functioning of body and *Doshik* balance. In pediatric age group

physical strength is less since *Dhatus* are yet to be build up resulting more susceptibility for the infectious diseases. Therefore, light, balanced and healthy diet should be advice for boosting immunity.

Light liquid diet should be given after 6-8 months, heavy diet should be avoided which may cause constipation. *Ayurveda* advocated that carbohydrate, protein, fat, minerals and vitamins enriched diet boost up immunity of growing children, thus food stuff must encompasses all essential components of balanced diet. *Ayurveda* mentioned that there is *Kapha* predominance *Prakriti*

(constitution) in paediatric age group therefore diet should be avoided that vitiate the *Kaphadosha* like more sweet, fried, includes preservatives.

4) Vihar:-

Ayurveda strongly described that hygiene condition avoid attack of frequently occurring infectious diseases. Mild exercise like *Yogasan*, *Suryanamaskar*, breathing exercise like *Pranayam* i.e. *Deerghashwasan* and *Anulom Vilom* improves the stamina of the body and strength along with boost up immune system, increase the strength of sense organ and improves concentration.

5) Rasayan :-

Rasayan therapy as rejuvenator, to facilitate immunity and strength of body. Herbs such as *Shankhapushpi*, *Guduchi*, *Haritaki*, *Punarnava*, *Bibhitak*, *Yashtimdhru*, *Vacha*, *Haridra*, *Pippali*, *Jyotishmati*, *Mandookparni* as well as *Nitya Sevaniya Rasayan* like *Goghrit*, *Godugdha* etc. Improve *Dhatus*, *Agni*, *Strotas* and *Oja*, which ultimately helps in building immunity.

6) Suvarnaprashan :-

Administration of processed gold in children is a unique practice mentioned in *Ayurveda* as *Suvarnaprashan* by *Aacharya kashyap*. The specific benefits of *Suvarnaprashan* are as follows

- *Medhaagnibalavardhanam* (improvement of intellect, digestion, physical strength)
- *Ayushyam* (promoting lifespan)
- *Mangalam* (Auspicious)
- *Punyam* (increase of *Satvaguna*)
- *Vrushyam* (capacity to reproduce healthy progeny)
- *Varnyam* (enhancement of colour and complexion)
- *Grahapaham* (protection from pathogens and microorganisms)

Discussion :- During this observatory study, it has been found that the ENT diseases such as sinusitis, acute *Otitis media*, *Stomatitis*, *suppurative otitis media*, allergic *rhinitis*, night blindness, laryngitis, adenoids are caused by low immunity. Poor eating habits, poor hygiene, lower socioeconomic status.

So the study highlights the importance of adequate and appropriate nutrition during perinatal period and early years of life.

While going through the text we found that, the concept of disciplined lifestyle is studied comprehensively *Dincharya*, *Nishacharya*, *Ritucharya* are suggested by *Aacharyas*. In this, proper hygiene, exercise, diet is explained. In *Dincharya*, for strengthening *Indriyas* above the sternum, some daily procedures are mentioned like, *Nasya* (i.e. instillation of medicated oil through nostrils), *Kawal* and *Gandoosh* (gargling with medicated oil/decoction), *Abhyang* (massaging the body with oil)

nourishes body tissue, strengthen *Agni* and also act as rejuvenating factor.

Aacharya Dalhan described *Karnapooran* for *Urdhwajatrugat Vyadhi* i.e. diseases above the sternum. In both *Ashtangsamgraha* and *Charaksamhita*, *Ritucharya* is suggested for customised seasonal regime. In this, proper diet according to season and types of exercise is suggested.

Ayurveda suggest diet for maintain *Doshik* balance, *Dhatupushti*, and *Agnivardhan*.

All these factors are very important for building immunity. It also has a concept of *Rasayana* for strengthening healthy body.

There are several drugs such as *Shankhapushpi*, *Haritaki*, *Pippali*, *Punarnava*, *Yashtimadhu*, *mandukparni* facilitate immunity.

Cow milk and cow's ghee can be taken in diet form to improve *dhatus*, *agni*, *strotas* and *oja* which decide the parameter for immunity.

In Paediatric text of *Ayurveda* *Suvarnaprashan* is described as an administration of processed gold in children from age 0 to 15 years. The specific benefits of *Suvarnaprashan* can contribute in building immunity against ENT disorders. In daily regime, *Ayurveda* proposes to the concept of *Vyayam* i.e. daily exercise, *Suryanamaskar*, breathing exercises such as *Anulomvilom*, *yogasanas* boost up immune system, and prevents infectious diseases.

Conclusion: Age from birth to 16 years described as *Baalya* (paediatric age group) according to *Sushrut*. This growing age is very crucial for infectious diseases because immune system yet to

be develop completely. In this age group complaints of parents for their children regarding ear, nose, throat and eyes are commonly seen. Commonly occurring ENT diseases in children mentioned in above table¹. In which most commonly and frequently occurring diseases are Acute otitis media, Allergic and infective rhinitis, Acute Tonsillitis and pharyngitis and its correlation with immunity.

Ayurveda depict different approaches in *Swasthavritta* to live healthy i.e. prevention, diagnosis and management.

“*swasthasyaswasthyarakshanam / Aaturasyavikarprashmanamch ||*”

Therefore this study provides observation regarding commonly occurring *Urdhwajatrugatvikaras* (ENT disorders) and its preventive immune measure for boosting immunity power and prevention. Thus if we follow prevention is better than cure from early childhood i.e. These measures to be follow with the daily *regim*, Rules, seasonal *regim*, *Aahar*, *Vihar*, *Rasayan* therapy need to be adopted from childhood to maintain discipline lifestyle which help to retain normal health and strong immune power.

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