

An Overview of the Ideas of the Traditional Medical Scholars on the Symptoms, Causes and Treatment of Nasal Catarrh and Post Nasal Drip

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ABSTRACT

Post nasal drip (PND) and catarrh were among the diseases much dealt with in Iranian traditional medicine. Traditionally, it included a wide range of concepts. The purpose of this review was to provide a brief overview of the opinions of Jorjani, Avicenna and Rhazes on PND and catarrh and to compare them with the findings in modern medicine. PND and catarrh are roughly and not exactly equivalent to Zokam and Nozleh in Persian traditional medicine. What is common between traditional and the modern medicine is that both believe that these diseases are rooted in brain. It seems that things like cold, rhinitis, sinusitis, pharyngeal secretions and their side effects are closely related to the catarrh and PND.

This study was a retrospective study which examined the ideas of Iranian scholars like Jorjani, Avicenna and Rhazes on identifying and treating catarrh and PND and compared them with modern medical science.

In this study on traditional medical texts, it was found that the diagnosis, prevention and recommendations on PND and catarrh in both modern and Islamic traditional schools of medicine are much the same in such a way that even the examining tools were similar.

Keywords- Avicenna, Jorjani, Rhazes , Catarrh, PND, Medical history.

INTRODUCTION

Catarrh is one of the most common diseases in winter that emerges with itching in the throat, sneezing, runny nose, fatigue, tiredness and fever. In this disease, nasal secretions block the respiratory tract causing cough and tightness in sternum. After the emergence of disease, the nasal secretions may cause infection in healthy persons for up to five days. The incubation period is short, between 18 and 48 hours of the onset of the disease, and it starts suddenly with no prior symptoms¹⁻³.

In traditional medicine, catarrh is known as Zokam. The term catarrh is applied to the secretions of the nasal mucosa which is alternatively called coryza or nasal catarrh. However, in Persian traditional medicine Nezleh refers to the posterior nasal discharge (PND). PND is caused by the common colds in the head that are not completely treated and the infectious sources haven't been completely removed and by the slightest provocation, the infectious secretions will recur (chronic sinusitis)^{2,4}.

If the phlegm inside the head is discharged naturally through the nasal tract, the sickness is called catarrh. However, if the ethmoid bone sieve is blocked because of dense phlegm-due to incomplete treatment or become condensed and plastered by the treatment with antibiotics-the phlegm will sediment and will be locked in the sinusoidal space. This leads to congestion and PND; and if the process continues, headaches and a variety of neurological disorders will follow. From the perspective of traditional medicine these secretions are from the brain and according to those scholars, no drugs should be prescribed before three days have passed and the secretions and waste should be allowed to discharge from the nose. Meanwhile, only light food should be taken^{4,5}.

According to Iranian traditional medicine PND and catarrh are caused by a variety of reasons including: weakness of brain, weakness of stomach, heat-temperedness, cold-temperedness, exposure to cold air after bathing or exercise, and so on. The scholars in this field have also prescribed a variety of methods to treat this illnesses.

METHOD

This overview research was done to study the opinions of the well-known Iranian scholars Jorjani, Avicenna and Rhazes on PND and catarrh and to compare them with modern findings in medicine.

Texts were selected based on the following issues:

1. Understanding the causes of nasal catarrh and PND, classifying their causes and treatments according to Persian Muslim physicians (Jorjani, Avicenna and Rhazes).
2. Comparing the opinions of Islamic Iranian physicians on nasal catarrh with those in new medical literature.

RESULTS

Muhammad ibn Zakariya al-Razi (Rhazes) (860-932 AD) who lived in Rey, was one of the first physicians who emphasized on clinical medicine and observation. He also was expert at prognosis, psychosomatic disorders and anatomy.

Rhazes's prescriptions on nasal catarrh and PND

Rhazes, the writer of *Al Mansouri Fi Tib* in the chapter on catarrh has said: Sleep on your side and avoid sleeping on your back and it's better to sleep in a sitting position. Decrease your food and avoid drinking wine.

Rhazes's opinions on materia medica

softeners and laxatives: twenty jujube seed and thirty cordia myxa seeds and 10 derams¹ of seedless currant, four derams of dried violet, 5 derams of crushed Glycyrrhiza glabra root and ten yellow figs mixed with three ratls² of water should be boiled until it is reduced to one ratl, then 10 derams of cassia fistula and 10 derams of soft manna is poured into it and is taken. If this laxative was not useful, catarrh goes to the chest and causes cough and fever. This time bloodletting from basilic vein should be done according to the severity of the cold. Till the fever and coughs are gone, use beer and violet jam. When the fever and coughs have improved and blood is good and secretions (from nose and mouth) have started, use this mixture daily together with violet jam to clear the chest, to cure coughs and to improve voice.^{4,5,11}

Avicenna on nasal catarrh and PND

Abu Ali Husain ibn Abdallah ibn Sina, known as Avicenna (980-1037 AD) who lived in Bukhara, was the author of an encyclopedia called Shefa and a book in medicine which is called Canon fi Tib - a book that is considered as one of the most famous and influential works in the history of medicine. In the fifth chapter of the book he stated:

"Both nasal catarrh and PND emerge from the brain. However, the secretions which pour into the throat are commonly called as PND. The cold PND gets mature if it is together with fever, but, the warm PND is not affected by fever"¹²⁻¹⁶

Symptoms of cold PND from Avicenna's view

If phlegm is from the nose it is cold in nature with symptoms like tickling of the nose, forehead expansion, nasal congestion,

nasalized voice and snuffling and sometimes the thickness of the phlegm is a symptom of PND. If PND is in the throat and is in cool white color, fever will help the patient. What is secreted into the nose is called nasal catarrh.^{16,18}

If the phlegm is salty, sour and sharp and is not matured early and is not disposed, it causes illness to whichever organ it enters: Eye: eye diseases such as runny eyes, itchy eyes and...

Ear: diseases like, Tinnitus, hearing impairment and...

Nose: nasal sores, itching, burning, and...

Palate: tonsillitis, itching, burning, and...

Pharynx and larynx: croup, hoarse voice, pain and...

Stomach: pain, hyperphagia Celiac and stomach ulcers and...

Lungs: cough, pneumonia, tuberculosis, and....

Diaphragm: Inflammation, pleurisy and, and...

Bowels; diarrhea, intestinal ulcers and...

If the phlegm is raw, thick and mucosal and is not excreted, it can cause colic.

If the phlegm remains in the head and cannot be discharged from any of the outlets it may cause diseases such as stroke, epilepsy, headache, megrim, melancholy, delirium, Dizziness and lethargy (oversleeping). Of course in the above mentioned illnesses, the quantity and quality of the phlegm is important.

All of these cases are also mentioned in Syed Ismail Jorjani's book of Zakhireh Kharazmshahi.

Treatments

"The patient suffering PND should avoid overeating. In the beginning, sneezing is harmful as it prevents the maturation of the phlegm in the brain. After phlegm is matured, sneezing is useful as it discharges matured waste. The patient should always keep his head warm and avoid cold. He

¹An old unit of measurement about 2.4 grams.

²An old unit of measurement for liquids about 336 grams.

should not sleep during the day and should be kept thirsty, hungry and awake which is the ultimate cure. "To cure PND, phlegm removers, whether drinkable or injections, are recommended.

Fighting against the cause of PND

If it is warm, coolants should be applied. For instance, every morning the patient should go to the bathroom to take a shower with fresh water and to sprinkle water on the hands and feet, and to apply violet oil to head and limbs and belly button and around the anus and penis. He should apply sprays made from barley and poppy and violets and daisies. He should pour vigorous coolants on his head. Food should be little, cold, and watery. He should daily consume golangabin.

If PND is cold together with cough, sneeze and throat tickling, he should cover his head with a piece of warm cloth in such a way that he feels the warmth has reached the brain. He should keep the head in this position and he may pour salt and green foxtail (*Setaria viridis*) on the cloth. He should use watery drugs which are maturing and weakening of the disease.

The phlegm can be cut off by gargling with coagulants such as cold water, rosewater, lentil extract, coriander juice, boiled poppy husk. Pomegranate juice is also good as it is warm for cold PND and is cold for the warm one. Congestive fumigation (spray) is sent to the nose and palate to stop it.

The fumigation include Sandroos (*Trachylobium hornemannianum Hayne*) for hot and cold PND, sniffing nigella(black seed)is beneficial for cold PND, sniffing roasted black seed and Galangal (*Alpinia galanga L*) covered in a piece of cloth is helpful^{4,5,11,17}.

Avicenna on Materia medica used in catarrh (Eggs):

Selection: the best one is poultry egg yolk. Do not fry it. The eggs of the birds which are close to poultry are the next good ones for example:, partridge and see-see partridge (*Ammoperdix griseogularis*). But the eggs of duck and other floating birds are not good and have bad temperament.

Temperament: the temperament of egg yolk is moderate; the albumen is cold and the yolk is warm. Both are wet, though the albumen is wetter.

Properties: eggs are astringent, especially the fried yolks, the white part is especially useful for pain relief, the harder the egg the more nutritious it is; the best is the soft boiled one which is absorbed faster.

Hakim Syed Ismail Jorjani (1041-1136 AD) in the tenth chapter of his comprehensive book on medicine called *zakhireh-kharzmshahi* (Khorezm Shah's Treasure written in 1112 AD) which is the oldest medical encyclopedia in Persian, states that:" catarrh and PND are the same as in both the phlegm flows down from brain. If it blocks the nose and stops the sense of smelling, it is called catarrh, and when it is discharged in chest and throat it is named PND.

Causes of PND and Catarrh According to Jorjani and Avicenna

Table 1. Causes of PND and Catarrh According to Jorjani and Avicenna

| PND & Catarrh |
|---|
| Internal causes |
| The temperament of the brain becomes warm |
| The temperament of the brain becomes cold |
| External causes |
| The temperament of the brain becomes warm because of exposure to the sun, bathing, stayinig beside fire for a long time, staying in a warm and small place in summer, smelling castoreum and musk |
| Exposure to cold air after exercise and bathing |

Symptoms

- 1-Eyes become red.
- 2-Nasal discharges are hot, sharp, thin, watery, and yellowish which burn the nose and throat.
- 3-Hoarse and nasalized voice, impaired sense of smell.

Also, if catarrh is prolonged it afflicts the chest and causes cough.

Treatment

The main factor in the treatment of cold and warm catarrh is to mature the phlegm, meaning that it takes a moderate density. In other words, if it is warm and thin, it is thickened to a moderate form and if it is thick, it is diluted to a moderate degree. To mature the warm catarrh, jujube, Assyrian plum (*Cordia myxa*), and poppy seeds boiled in whey should be prescribed. If the phlegm is abundant and warm bloodletting must be prescribed, and if not so, bloodletting should be prescribed after three days when the phlegm is mature enough^{4,5,11,22}.

The major causes of PND and catarrh according to the modern medicine

According to the modern medical literature, the major causes of the PND and catarrh can be divided into the following categories, most of which are referred to in ancient Persian and Islamic texts, though in simpler and less scientific terms^{5,4,11,17,22}.

Catarrh (common cold) is the commonest human diseases that afflicts everyone in the world^{5,4}. Catarrh which is also known as "acute coriza" is as afebrile viral disease which causes inflammation of the upper airway. Catarrh (Zokam) as defined in traditional medicine is not specified and discussed in modern medicine, however acute and chronic sinusitis can be examined under this term²⁴.

Viruses are the cause of about 90% of the cases of the common cold with reno and corona viruses as the most prevalent

ones. In allergic rhinitis, allergens are divided into seasonal and perennial ones^{4,26,25}. Nonallergic rhinitis can be caused by any nasal disorder, including damage to nasal nerves, blood vessels, endothelial and epithelial cells of the lining of the nose.

There are three causes of acute sinusitis:

- 1-Blockage of the sinus pores or passages, which is the commonest cause of the common cold.

- 2-Impairment of mucociliary transport

- 3-Direct spread of infection, for example from the maxillary teeth or swimming in contaminated water.

Also, there are three causes of chronic sinusitis:

- 1-Local factors such as nasal polyps or foreign body.

- 2-Proximal factors like dental disease.

- 3-Systemic factors such as immune deficiency syndrome, or non-motile cilia^{4,26,25}.

Signs

In this regard modern medicine states that in common cold, after four days symptoms of pharyngitis, nasal congestion, coriza, headaches, eye irritation and tears start; moreover, fever, chills, muscle aches, joint pain, dry cough, lethargy and coughing at night might happen.

Allergic rhinitis symptoms include itching, rhinorrhea, nasal congestion, cough, fatigue, and headaches⁴.

Nonallergic rhinitis symptoms are rhinorrhea, nasal congestion, sneezing, and negative history of allergies. Acute sinusitis symptoms include involved sinus hypersensitivity, headache, nasal obstruction, nasal discharge, fever and lethargy. Symptoms of chronic sinusitis include: nasal obstruction, purulent nasal discharge and pharyngeal secretions. There may also be an impaired sense of smell⁴.

Treatment

In modern medicine, there is no specific treatment for the common cold, although to relieve the patient some antipyretic medications are prescribed which reduce the mucus of the nose and relieve cough.

Diseases caused by the common cold

From the view of modern medicine PND can cause polymyositis, Guillain-Barre syndrome, MS, digestive disorders, joint disorders, and etc^{4,3}.

DISCUSSION

In this study on traditional medical texts, it was found that diagnosis, prevention and recommendations on PND and catarrh in both modern and Islamic traditional schools of medicine are much the same. Even the examining tools were similar to those in modern times. Interestingly, if the views of Avicenna (428-370H.q) and Jorjani (531-435H.q) are compared the rapid development of traditional medicine will be noticed. This also represents the dynamism of the Islamic traditional medicine during the past centuries. Medical history has proven that many of today's medical advances and innovations are rooted in the opinions and ideas of the Muslim Iranian doctors.

This study showed that many of the achievements of the Iranian traditional medical practitioners still have retained their scientific values. And in addition to being in agreement with modern findings in medical science, the traditional medicines had the privilege of containing no synthetical chemicals, no side effects, and were based on the local herbs in reach of all people^{10,6,15,30}.

CONCLUSION

Despite the fact that modern developments and techniques have been able to cure many respiratory diseases, there are

still simple and clear guidelines inherited from the ancient Iranian medical practitioners which can help cure these diseases with minimum side effects and high effectiveness. Given that in modern medicine the use of antibiotics is being restricted, the adoption of the non-chemical drugs prescribed in traditional medicine can be considered as an effective alternative.

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