

Sinus Infections

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Aetiology

In the Ayurvedic approach to sinusitis, exposure to an infective agent such as pathogenic bacteria is just one factor in the development of the illness. Of far greater significance is the build up of excess *doshas* in the body, due to incorrect diet and lifestyle. Once excess *doshas* have built up and become prevalent due to repeated errors in daily regimen, they are readily carried by *vata* upwards to the head, where they lodge in any weak spot, creating acute illness. Unfortunately, due to today's polluted environment, the integrity of the mucus membranes of the nasal sinuses is under constant attack. Thus weakened, the sinuses are particularly vulnerable to invasion by provoked *doshas*. It is the unwholesome situation created by a combination of weakened sinuses, accumulation of *doshas* and build-up of *ama* or toxins in the body that provides a fertile ground for the multiplication of pathogens.

Sinusitis, as an inflammatory condition, always involves some component of *pitta*, the fiery humour. However, provocation of either *vata* or *kapha* within the sinuses can give rise to *pitta* irritation of the mucous membranes. Sinus infections thus can be regarded as either *vata*, *pitta* or *kapha* in nature, each type having specific causative factors and symptoms.

Causes of *vata*-type Sinus Infection

According to the *Charak Samhita*, factors which tend to provoke *vata* in the sinuses and head include suppression of natural urges, sleeping by day, staying awake at night, loud or excessive talking, excessive sexual intercourse, fasting, and consumption of too much salad and other raw foods. Charak notes that emotional factors play a significant role in the development of *vata* type sinusitis, particularly too much weeping; suppression of tears; grief, fear and anxiety. Head injury causing fracture of the sinus passages can predispose to *vata* type sinusitis, while Charak specifically mentions environmental causes, namely exposure to smoke or dust. Nowadays, environmental factors play an even greater role in creating a predisposition to sinus infections. All particulate air pollution, including soot, industrial pollution, dust from synthetic carpets and forced-air indoor heating, as well as air-conditioning, play a major role in provoking the *vata* dosha in the head and sinuses.

Causes of *pitta*-type Sinus Infections

The factors listed by Charak as giving rise to *pitta*-predominant sinus infections include excessive intake of spicy foods, salt, sour fruits, vinegar and alcohol, excess exposure to the sun, and overly warm indoor environments. Anger is the main emotional factor underlying any episode of *pitta* sinusitis. In modern times, environmental pollution plays a key role in creating a predisposition to *pitta* type sinusitis, for the *pitta* in the

sinuses is greatly provoked by inhalation of fumes and toxins. In the outdoor environment, car exhaust, herbicides, pesticides, and factory fumes are significant provoking factors. Unfortunately, most indoor environments today offer even more opportunity to irritate *pitta* in the sinuses. Formaldehyde, paint fumes, carpet glues, epoxy resins, asbestos, drain cleaner, household cleaners, detergents, and chlorine bleaches are just some of the toxins to which we and our children are consistently exposed, and which ongoingly irritate the sinus passages. Furthermore, *pitta* type sinus infections are an occupational hazard for many, including house painters, carpet fitters and artists who work in oil. Another significant cause of both *vata* and *pitta* sinusitis is cocaine snorting.

Causes of *kapha*-Type Sinus Infections

kapha-type sinus infections are a classic disease of the “couch potato” type. Sedentary habits, excess sleep, and a diet high in oily, sweet and heavy foods, are the main provoking factors mentioned by Charak. Denial and “stuffing” of emotional pain can manifest as stuffy sinuses, while molds, damp, fog and smog also serve to provoke *kapha* in the sinus passages.

Symptoms of *vata*-type Sinus Infections

In *vata*-type sinus infections, the sinuses are dry, painful and sensitive. Nasal discharge is scanty and may be brownish in color. Pain is extreme, particularly in the temporal region, the forehead and between the eyebrows, while the patient may complain of pain in the ears and dizziness. At times the pain may be so severe that the affected person feels as if the head is breaking apart and the eyes are falling out. A patient in this condition is extremely restless, nervous, and hypersensitive, pacing back and forth or writhing on the bed. The neck and shoulder muscles are stiff and sore, while the condition may be accompanied or preceded by generalized *vata* symptoms such as constipation. Application of hot rocks or warm castor oil packs provide a measure of relief.

Symptoms of *pitta*-type Sinus Infections

pitta-type sinusitis is accompanied by fever—in some cases, such as acute frontal sinusitis, by very high fever with delirium. The sinuses throb and the facial bones are tender to the touch. Nasal discharge is yellow, orange or green, and may be streaked with blood. The head burns, and the eyes burn and there is a throbbing headache, while thirst and sweat accompany the fever. The patient is irritable, angry, critical and demanding. Application of cold packs provides a measure of relief from the burning head pain.

Symptoms of *kapha*-type Sinus Infections

In the case of *kapha*-type sinusitis, the sinuses and nose are so stuffy that the patient breathes through the mouth. Nasal discharge is copious, thick, white and sticky. There

is dull pain in the head, numbness and a feeling of heaviness. The head feels cold, while the patient also complains of drowsiness, lack of appetite and general lassitude.

Diagnosis of Sinusitis

In the presence of the above-mentioned symptoms, it is fairly easy to diagnose *vata*, *pitta*, or *kapha* type sinusitis, while a sinus infection involving a combination of two *doshas* will show a mixture of symptoms. What is of key importance in the diagnosis of any sinus infection is to determine which of the three *doshas* is the root of the condition. Is the patient's *kapha*-type sinusitis, for instance, part of a generalized *kapha* provocation, or has the *kapha* disorder in the head arisen as a result of overall *vata* provocation? It is extremely important to answer the question in order to employ the correct treatment strategy.

In the case of *vata*-type sinusitis, this typically results from generalized *vata* disturbance, although other, more complex situations are possible, since either *pitta* or *kapha* may be blocking the *vata* in the sinuses. With *pitta*-type sinusitis, the condition may result from *pitta* provocation, or from generalized *vata* provocation which has pushed *pitta* into the head, or from an overall *kapha* condition, displacing and blocking *pitta* in the head. And while *kapha* sinusitis can and frequently does manifest as a symptom of *kapha* provocation, there are also very many *vata* provoked individuals who experience *kapha*-type sinusitis, as a result of *vata* pushing *kapha* to the head. Correct diagnosis of this situation is essential, for typically, *kapha* sinusitis would be treated by bitter, pungent and astringent herbs and foods—the very tastes that provoke *vata*. If generalized *vata* disturbance is the underlying cause of the *kapha* sinusitis, treatment aimed solely at pacifying *kapha* will serve only to worsen the condition.

Thus, the particular type of sinus infection may be diagnosed from the symptoms and from examination of the temporal pulse, but the overall *doshic* balance must also be assessed carefully, by taking a detailed history and performing a thorough examination of the tongue, face, nails, and above all, the radial pulse—*nadi vighnan*, or pulse diagnosis. Assessment of the *vikruti* pulse, showing the current state of balance or imbalance of the *doshas*, will clearly reveal, for example, general *vata* provocation accompanying *kapha* type sinus infection. Careful history taking and use of the questions, “When were you completely well?” and “What was the first symptom you experienced?” will perhaps show a history of constipation, restlessness, fear and insomnia—all *vata* symptoms preceding the onset of *kapha* sinusitis.

Treatment

The treatment protocol for any sinus infection involves the following:

1. Management of fever
2. Use of *neti* or nasal cleansing
3. Use of *Nasya* or nasal medication
4. Herbs

5. Diet
6. Cleansing or purificatory measures
7. Lifestyle adjustments to prevent further episodes

Management of fever

Acute sinusitis, like any acute condition, should be treated according to the classic guidelines for fever. If this is not done, either the sinusitis will become chronic or other, more severe conditions will arise. Of the utmost importance in the management of fever is fasting. The patient should abstain from solid food for the duration of the fever, until the temperature returns to normal and keen appetite arises. The *vata* person can fast on warm tea made from fresh ginger or from ajwan (Sanskrit, *ajamoda*, Lat. *apium graveolens*), which calms *vata* and relieves stuffy sinuses. The *pitta* person can fast on cool or lukewarm teas made from coriander, sandalwood, rose or fresh ginger, all of which are anti-infective and anti-febrile. The *kapha* person can fast on tea of dry ginger.

Once keen appetite returns, the first meal should consist of a soup or gruel such as rice gruel, barley gruel, squash soup or mung bean gruel, cooked with digestive spices such as ginger, black pepper, cumin, coriander, fennel, turmeric, cinnamon, cardamom, and bay. This preparation helps restore digestive fire. That evening, bitter and pungent herbs such as Mahasudarshan, a combination of about forty different herbs, and Trikatu, a combination of three pungents, dry ginger, black pepper and piper longum should be taken. These bitter and pungent herbs help to restore digestive fire and remove toxins. Next day, well-cooked and easily digestible foods should be taken, such as *kitcheri*, a preparation made from basmati rice and mung dal, and the specific herbal regimen for the sinus infection should be instituted.

Jala Neti – Salt Water Nasal Cleansing

The use of *jala neti* or salt water nasal cleansing is essential in both the treatment and prevention of sinus infection. This involves washing the nasal passages with salt water which is poured into the nostril and exits out the other nostril or through the mouth. The water used for the purpose should be pure, free of chlorine, while the salt should be either pure sea salt, or better still, rock salt from Utah. Classically, a brass vessel with a long spout is used, although an indoor plant watering can with a spout makes an excellent substitute. This procedure cleans the passages, enabling the sinuses to drain freely, an essential aspect of treatment.

Like any other part of the body, the nose, after being washed with lukewarm water of the same salinity as tears, must be carefully dried. This is effected by vigorous breathing exercises and forward bending yoga poses which allow any excess water to drain from the sinuses.

The other form of *neti* is *sutra neti*, using a string stiffened and lubricated with beeswax, which is passed in through the nose and out through the mouth. Sutra neti, which helps to maintain the passages in a free condition, so that the sinuses can drain, is of great use

both in the prevention of sinusitis and in the treatment of chronic, allergic or non-infective sinusitis. However, *SUTRA NETI* SHOULD NEVER BE USED IN ACUTE SINUS INFECTIONS, since it has the potential to spread the infection further.

Nasya – Nasal medication

Since sinusitis is a localized infection, localized treatment in the form of nasal drops is particularly helpful. One patient, who came to see me complaining of a severe sinus infection, had recently been treated by an antibiotic so strong that, once she took it, her hair fell out. Even so, due to the poor blood supply of the sinuses, which ensures that only small doses of antibiotic reach the sinuses, her infection was just temporarily relieved. After being treated with *Nasya*, she recovered in a few days. Her only regret was that she did not learn about the value of Ayurvedic treatment until after her hair fell out.

Nasyas may be of two kinds, water-decoction or oil-based. An excellent decoction *Nasya* for sinusitis is ginger-rose-jaggery, consisting of a decoction of equal parts fresh ginger, rose petals and jaggery, a product made from boiled-down sugar can juice and readily available in Indian grocery stores. This preparation is *tridoshically* balanced, the coolness of the rose balancing the heat of the ginger. It is tremendously effective in clearing the head.

Oil *Nasyas* may be prepared using a sesame oil base and may include anti-infective oils such as eucalyptus, rose and tulasi (sacred basil—*ocimum sanctum*). For both *vata* and *kapha* type sinusitis, vacha oil *Nasya* (*acorus calamus*) is extremely helpful, as it is decongestant and reduces both *vata* and *kapha*. For *pitta* type sinusitis, the best *Nasya* is ghee medicated with Brahmi (*herpestis monniera*).

All *Nasyas* should be administered in fish pose, with the head tilted backwards. According to Ayurvedic teachings, the correct dose is five drops per nostril, one drop for each of the Five Elements.

Oral use of botanicals

In oral, that is, systemic, use of botanicals for sinusitis, it is of the utmost importance, as described above, to consider not only the type of sinus infection that is present, but also the overall *doshic* balance in terms of both *vikruti*, or current imbalance, or *prakruti*, or constitution. Those herbs should be selected and combined which will treat both the sinus infection and the general *vikruti*, while not ignoring *prakruti*—for example, very hot herbs are generally avoided in *pitta prakruti*, even if *vata* or *kapha* are the main provocations.

Marich (Black Pepper, *piper nigrum*)

Marich is pungent in taste, heating in energy, pungent in post-digestive effect. It pacifies *vata* and *kapha*, but provokes *pitta*. Its name, marich, is one of the names of the sun, for it is believed to absorb and concentrate solar energy. Its active principle is

piperin. It has decongestant action and can be used in both *vata* and *kapha* type sinus infections, one pinch orally mixed in honey, two or three times daily.

Tvak (*Cinnamon, cinnamomum zeylonicum*)

Cinnamon is pungent, sweet and astringent in taste, heating in energy and sweet in post-digestive effect. It pacifies *vata* and *kapha* and may provoke *pitta*. Diaphoretic, expectorant, decongestant and analgesic in action, it is helpful in the treatment of *vata* and *kapha* type sinusitis. It should be taken only in pinch-sized amounts and is best combined with other herbs.

Vacha (*acorus calamus*)

Pungent and bitter in taste, heating in energy, pungent in post-digestive effect, vacha calms *vata* and *kapha*, but may provoke *pitta*. In sinusitis, it may be administered systemically, in a balanced yoga or formula with other herbs, topically, as a paste applied externally to the sinuses, or nasally, either as a snuff or in the form of vacha oil *Nasya*. By all these routes of administration, it will clear and heal the sinuses.

Chitrak (*plumbago rosea*)

Pungent in taste, heating in energy, pungent in post-digestive effect, chitrak is generally *tridoshic*, although if used in excess it will provoke *pitta*. Chitrak is generally useful in all fevers and respiratory tract infections, and should form part of a balanced yoga (formula) for the treatment of sinus infections.

Tulasi (*ocimum sanctum*)

One of the most sacred and revered plants in India, tulasi is bitter in taste, heating in energy, pungent in post-digestive effect. It pacifies *vata* and *kapha*, but provokes *pitta*. In effect, it is antibacterial, antiviral, antiseptic, antipyretic and diaphoretic. It is the herb of choice for all *vata* and *kapha* type fevers and respiratory tract infections, including acute sinusitis, but should not be used in *pitta* sinusitis. Above all, it is the perfect herb for the situation of *vata* pushing *kapha* to the head, with *kapha*-type sinusitis, for it both removes the *kapha* from the nasal passages and balances *vata* in its seat, the colon. Tulasi is best taken as a tea or infusion, with honey.

Rose

Rose is bitter, pungent, astringent and sweet in taste, cooling in energy, and sweet in post-digestive effect. In *pitta*-type sinusitis, it serves to lower fever, reduce *pitta* and soothe the inflamed sinuses. Rose can also be used to balance a formula to make the overall effect more suitable for *pitta*.

Sitopaladi Churna

This is a formula consisting of rock candy, bamboo manna, pippali (*piper longum*), cardamom and cinnamon. It may be taken in doses of 1-4 gm, 2-4 times daily, and is a balanced formula, extremely valuable in all types of sinusitis, although it is most effective as an anti-*kapha* remedy.

Abrak Bhashma

Abrak is a preparation made from mica ash, and is a valuable anti-infective agent, useful in all types of sinus infections. It should be used in very small quantities, combined with other herbs to form a balanced yoga.

Diet

Selection of the proper diet is important in the prevention of and treatment of sinus conditions. In *vata*-type sinusitis, a diet of warm, moist, oily, soupy food should be taken, and raw, dry and bitter foods avoided. In *pitta* sinus infections, it is necessary to reduce the intake of spicy, sour and salty foods. For *kapha*-type sinusitis, a light, dry, warming diet is needed, strictly avoiding all dairy products except ghee and goat milk.

Lifestyle adjustments

Lifestyle adjustments both facilitate the treatment of sinus infections and prevent them recurring or becoming chronic. Habits which tend to provoke *vata* in the sinuses, such as smoking or snorting cocaine should be stopped. Attention must be paid to indoor air quality, reducing as far as possible the uses of chemicals in the home and office. In certain cases, there may need to be an adjustment in the person's occupation. For example, one patient of mine has switched from painting in oils to watercolor. Underlying emotional factors should also be addressed, particularly when the patient has a history of recurrent sinus infections. Positive habits such as a proper exercise program should be encouraged while a pranayama practice is extremely valuable in maintaining the balance of vital airs (*prana*) in the head.

Cleansings

Cleansing practices other than *jala neti* and *Nasya* cannot be used during the acute stage of a sinus infection, but can be applied either after the condition is resolved, or after it has persisted for more than three weeks. The value of cleansing practices is to reduce the excess *doshas* and to restore the *doshas* to their seats, thus preventing recurrence, chronicity or the onset of other, more serious conditions. In the case of *vata* sinusitis, or of *vata* pushing the other *doshas* into the head, the most important cleansing is *snehan svedan*—that is, oiling the whole body with sesame oil and then sweating. *Basti* or Ayurvedic enema should also be employed to calm the upward movement of *vata*. Oil enema can be done, using a few ounces of warm sesame oil, to calm the *vata* in the colon. This can be followed by a decoction enema, using two tablespoons of *dashmoola* (a combination of ten roots including castor root) to one and a half pints of pure water, simmering this without reducing, for twenty minutes.

Pitta-type sinusitis is an indication that *pitta* should be reduced by virechan (purgation). The most simple and gradual method of purgation is to take an infusion of one-half teaspoon of amlaki (*emblica officinalis*) daily at bedtime. Amlaki can be prepared as either a cold infusion or hot infusion; however, it may be easier to digest when drunk as a warm tea than as a cold infusion.

For *kapha*-type sinusitis, vaman, or emesis, is a key therapy. The excess kledak *kapha* which accumulates in the stomach—the main seat of *kapha*— is what overflows into tarpak *kapha*, the *kapha* of the head, leading to stuffy sinuses. Hence, to get to the root of the problem, it is essential to pacify the *kapha* in the stomach, and to remove excess *doshas* from the seat of *kapha*. The Ayurvedic method of vaman typically involves ingestion of about a quart of liquorice tea, after which the uvula is immediately stimulated until vomiting occurs. The yogic method is slightly different, salt water (normal saline) beings used instead of liquorice tea. Saline is used to cleanse the stomach, in exact proportion of one and a half teaspoons of salt per quart of pure water. Concentrated salt solution, despite its emetic effect, is not used for this practice, since it would have a dehydrating effect. Vaman is also effective in clearing the sinuses in situations where *vata* is pushing *kapha* to the head. However, in this circumstance, emesis should be employed only with great caution, since this practice has a potential to promote *vata*.

Conclusion

Like all conditions of the head, sinus infections are less easy to diagnose and treat then might appear at first glance. This is because of the tendency of *vata* to move upwards, carrying other *doshas* to the head. Thus, the provocation occurring within the head and sinuses is by no means always the same as that affecting the rest of the body. Chronic or recurrent sinus infections may result from a failure to treat the underlying *doshic* imbalance. In particular, great caution is needed when using extremely bitter anti-infective herbs, such as goldenseal (*hydrastis canadensis*). If *pitta* and *kapha* are the main *doshic* imbalances, these herbs will be very effective, but if an underlying *vata* imbalance is giving rise to a *pitta* or *kapha* type of sinus infection, excess use of bitter herbs will greatly exacerbate the condition.

Similarly, the use of antibiotics for *pitta*-type sinusitis is very much a double-edged sword, since most antibiotics are *pitta* provoking. By aggravating the underlying cause, antibiotics, although effective in the short run, may tend to create recurrent *pitta*-type conditions.

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