Case 5 #For the question：Two months after a cold (COVID-19 negative), the patient experiences recurrent pain near the right forehead and bridge of the nose, described as mild stabbing pain. The Chinese medicine diagnosis is right-sided sinusitis (frontal sinus). They have been on antibiotics for a week and plan to stop. Pain worsens after exposure to wind or drinking cold beverages, while drinking warm water slightly alleviates it. Associated symptoms include clear, thin nasal discharge, post-nasal drip, nasal congestion, and white, thin nasal discharge with blood streaks. The patient has been using nasal spray since the age of 18 for about five years, with increased post-nasal drip in cold winter days. They are prone to anxiety and irritability, with right-sided shoulder and neck pain, while the left side is not painful.

Q1: What is the TCM diagnosis?

Q2: How does TCM prescribe treatment?

Q3: Why does allergic rhinitis lead to recurrent pain near the forehead and bridge of the nose?

#Which of the following answers is better, Answer A or Answer B? What are their respective scores?

Q1: What is the TCM syndrome?

(Llama 3.2 3B) #AnswerA：

Based on the symptoms described, the TCM diagnosis would be Liver Wind Cold damage to the Lung.

The recurrent pain near the forehead and bridge of the nose, worsened by wind or cold beverages, and alleviated by warm water, suggests a pattern of "Wind Cold" type of pain. The fact that the patient has been using nasal spray for five years and is prone to anxiety and irritability also supports this diagnosis.

The Liver Wind Cold damage to the Lung pattern is typically associated with symptoms such as:

\* Headache or facial pain

\* Nasal congestion, runny nose, or post-nasal drip

\* Shoulder or neck pain

\* Anxiety, irritability, or restlessness

In TCM, the Liver Wind Cold damage to the Lung pattern is often caused by a combination of factors, including:

\* Environmental factors such as wind, cold weather, or drafts

\* Diet and lifestyle factors such as overindulgence in cold foods or drinks

\* Emotional factors such as anxiety, stress, or irritability

The TCM treatment for Liver Wind Cold damage to the Lung would typically involve a combination of herbal remedies, acupuncture, and other therapies aimed at restoring balance to the Liver and Lung meridians.

(Llama 3.2 3B+RAG) #AnswerB：

Based on the provided symptoms and TCM diagnostic signs, the diagnosis is likely as follows:

1. \*\*Frontal Sinusitis (Ji Hua) - Zhī Lìng\*\*

This Chinese medicine diagnosis matches the patient's symptoms of recurrent pain near the right forehead and bridge of the nose, exacerbated by wind or cold drinks, but slightly alleviated by warm water.

2. \*\*Thin Nasal Discharge and Postnasal Drip (Chén Shī)\*\*

The presence of clear, thin nasal discharge and postnasal drip is consistent with this diagnosis, which can be characterized by an excess of Cold (Shū) or Wind-Dampness (Fēng Dàn).

3. \*\*Nasal Congestion and Right-Sided Shoulder and Neck Pain\*\*

The patient's right-sided shoulder and neck pain may be related to the frontal sinusitis, as it is often associated with headaches and facial pain.

4. \*\*Anxiety, Irritability, and Pale Red Tongue with Thin White Greasy Coating\*\*

These symptoms can be indicative of an excess of Wind (Fēng), which is also consistent with the diagnosis of frontal sinusitis. The pale red tongue with a thin white greasy coating may suggest an underlying constitutional pattern or a secondary reaction to the acute condition.

5. \*\*Right Cun Pulse Deep and Slippery\*\*

The description of the right cun pulse as deep and slippery can be interpreted as indicating congestion or obstruction in the right nasal passage, consistent with frontal sinusitis.

Overall, this diagnosis aligns with the patient's symptoms, including recurrent pain near the forehead, nasal discharge, postnasal drip, and worsened symptoms during cold weather.

Comparison：(ChatGPT as a judge)

Answer B is the better choice.

### Reasons:

1. Detailed Symptom Matching: Answer B offers a more thorough alignment with the patient’s specific symptoms, such as the frontal sinusitis diagnosis, nasal discharge, and postnasal drip, all of which are clearly explained. It also mentions how these symptoms worsen with cold exposure and improve with warm water, reflecting the patient's experience.
2. Clear TCM Patterns: Answer B explains the pattern of Wind-Dampness (Fēng Dàn) and Cold, which are relevant in TCM for sinusitis, matching the patient’s signs like the right-sided pain, nasal congestion, and postnasal drip.
3. Pulse and Tongue Analysis: The analysis of the pale red tongue with thin white greasy coating and the right cun pulse provides a more comprehensive TCM diagnostic perspective. It connects these observations with the patient’s overall condition, showing a deeper understanding of the TCM diagnosis process.
4. More Specific Diagnosis: Answer B breaks down the symptoms into distinct patterns, such as frontal sinusitis (Ji Hua - Zhī Lìng) and excess of Wind (Fēng), whereas Answer A focuses broadly on "Liver Wind Cold damage to the Lung," which is less specific and does not address the sinusitis condition as directly.

### Scores:

* Answer A: 6/10 – While it correctly identifies "Wind Cold" patterns, it lacks specificity regarding sinusitis and does not provide a comprehensive explanation of the patient’s symptoms.
* Answer B: 9/10 – Provides a well-rounded TCM diagnosis, matching the patient’s symptoms in detail and considering the tongue, pulse, and environmental factors.

Q2: How is the disease described in TCM?

(Llama 3.2 3B) #AnswerA：

Based on the patient's symptoms, a Chinese medicine diagnosis of right-sided sinusitis (frontal sinus) would be made. Here's a possible TCM prescription:

1. Formula: Zhi Bai Di Huang Wan (Stem Bark and Reishi Herbs Decoction)

- Main ingredients:

1. Ginkgo biloba (Zi Wei), which is known for its cooling effect and ability to relieve nasal congestion and sinus pressure.

2. Licorice root (Gan Cao), which has anti-inflammatory properties that help reduce swelling in the sinuses.

3. Reishi mushroom (Ling Zhi), which has been traditionally used to treat respiratory issues, including sinusitis.

2. Formula: Huang Qi San Li Tang (Cauldron Herb and Ginger Decoction for Sore Throat)

- Main ingredients:

1. Astragalus root (Huang Qi), which is known as a warming herb that can help relieve nasal congestion by nourishing the lungs.

2. Ginger (Sheng Xia), which has anti-inflammatory properties that help reduce sinus pressure and inflammation.

3. Formula: Yin Qiao San (Floating Orchid Powder for Cold Sore of the Eyes)

- Main ingredients:

1. Scutellaria baicalensis (Huang Lian), which is used to treat nasal congestion, sinusitis, and other respiratory issues.

2. Chrysanthemum flowers (Ju Hua), which have anti-inflammatory properties that help relieve pain and inflammation.

4. Formula: Sheng Ma San Ling (Sage Powder for the Cold)

- Main ingredients:

1. Sage leaves (Sheng Ma), which has a cooling effect on the body, helping to relieve nasal congestion and sinus pressure.

2. Licorice root (Gan Cao), which is used to treat respiratory issues.

5. Formula: Xue Ya Wan (Herbal Medicine for Nose Bleed)

- Main ingredients:

1. Salvia miltiorrhiza (Dan Shen) root, which has anti-inflammatory properties that help reduce bleeding.

2. Rhubarb (Huang Qi), which is used to treat colds and respiratory issues.

6. Formula: Yin Chen Hao San (Yinchenha Powder for Nasal Decongestion)

- Main ingredients:

1. Artemisia annua (Yin Chenha), which has anti-inflammatory properties that help relieve nasal congestion.

2. Sichuan pepper (Sichuan Bo), which is used to treat respiratory issues.

These formulas are aimed at relieving symptoms, such as nasal congestion, sinus pressure, and pain, while also addressing the patient's anxiety and irritability. However, please note that this is a hypothetical prescription, and it's always best to consult with a licensed TCM practitioner for personalized treatment.

(Llama 3.2 3B+RAG) #AnswerB：

Based on the provided clinical scenario, here's a possible Chinese Medicine (TCM) prescription:

\*\*Pattern Identification:\*\*

\* The patient presents with recurrent pain around the right forehead and nasal bridge, accompanied by clear, thin nasal discharge, postnasal drip, nasal congestion, and right-sided shoulder and neck pain.

\* The pain worsens with wind or cold drinks and improves slightly with warm water consumption.

\* Postnasal drip is particularly pronounced in cold winter days.

\*\*TCM Diagnosis:\*\*

Based on the symptoms and tongue coat description, a TCM diagnosis of Right-Sided Sinusitis (Frontal Sinus) is likely. The presence of clear, thin nasal discharge and postnasal drip further supports this diagnosis.

\*\*Prescription Considerations:\*\*

1. \*\*Warm and Dry Treatment:\*\* To address the worsening of symptoms with wind or cold drinks, a warm and dry treatment approach would be indicated. This could include prescriptions that are warming and drying in nature.

2. \*\*Clearing Wind-Cold Dampness:\*\* The patient's postnasal drip worsens in cold weather, indicating the presence of wind-cold dampness. A prescription that clears wind-cold dampness would be appropriate.

3. \*\*Relieving Pain and Congestion:\*\* To alleviate the recurrent pain around the right forehead and nasal bridge, a prescription with analgesic and anti-inflammatory properties would be necessary.

\*\*Prescription:\*\*

A possible TCM prescription could include:

\* Huangqi (Astragalus) 12c or 15c

\* Cang'erui (Bupleurum) 15c or 20c

\* Huanglingian (Ginseng) 9g or 10g

\* Shennongyao (Adaptogen)

\* Warm and dry herbs such as:

+ Huangqi's warming properties could be enhanced with the addition of:

- Huangqi + Ruyi Xueyu (Warming agent for clearing wind-cold dampness)

+ Cang'erui's drying properties could be supported by:

- Cang'erui + Dukou (Dry the lungs and relieve cough)

\* Anti-inflammatory and analgesic herbs:

+ Huanglingian (Ginseng) 9g or 10g

+ Bai Zhi (Sichuan Pepper) 12c or 15c

\*\*Dose:\*\*

The dose of the prescribed herbs would depend on the individual patient's condition, age, and health status. A typical starting dose for most adults is:

\* Huangqi 12c or 15c

\* Cang'erui 15c or 20c

\* Shennongyao 3-6 tablets

\* Ruyi Xueyu (optional) 1-2 tablespoons

\*\*Warm Water and Nasal Spray Adjustment:\*\*

The patient's current nasal spray regimen would need to be adjusted. The herb Cang'erui could be added to the nasal spray, as its drying properties may help alleviate postnasal drip.

Please note that this is a hypothetical prescription based on the provided clinical scenario. A licensed TCM practitioner should be consulted for personalized diagnosis and treatment.

Comparison：(ChatGPT as a judge)

Answer B is the better choice.

### Reasons:

1. Pattern Identification: Answer B correctly identifies the core TCM patterns, such as Wind-Cold Dampness and Right-Sided Sinusitis (Frontal Sinus). It specifically tailors the treatment to address the symptoms worsening with cold and wind, and provides a warm, drying approach to match the patient's condition.
2. Symptom-Specific Treatment: It thoroughly addresses the patient's symptoms, including the recurrent pain, nasal congestion, and postnasal drip with a clear focus on warming, drying, and relieving congestion. The prescription includes a well-thought-out herbal combination targeting wind-cold dampness and providing anti-inflammatory and analgesic effects.
3. Practical Adjustments: Answer B also mentions adjustments to the patient’s nasal spray regimen, which shows a comprehensive treatment approach considering both external and internal treatments.
4. Herbal Formula Customization: The prescription in Answer B is more practical and grounded in TCM principles, offering specific doses and the function of each herb, along with how they work together to alleviate the condition.

### Scores:

* Answer A: 6/10 – While it provides a broad set of formulas, it lacks a cohesive treatment strategy focused on the patient’s symptoms and doesn't tie the prescriptions to the specific TCM patterns as clearly as Answer B.
* Answer B: 9/10 – It provides a thorough, symptom-focused treatment plan based on TCM principles, addressing both the root cause and immediate symptoms with clear herbal prescriptions and practical suggestions.

Q3: How does TCM prescribe treatment?

(Llama 3.2 3B) #AnswerA：

Allergic rhinitis can lead to recurrent pain near the forehead and bridge of the nose due to several mechanisms:

1. \*\*Inflammation\*\*: Allergic rhinitis causes chronic inflammation in the nasal passages, sinuses, and surrounding tissues. This inflammation can lead to the production of histamine, a chemical mediator that stimulates blood vessels to dilate, causing increased blood flow to the affected areas. As a result, the skin and mucous membranes may become more sensitive, leading to pain and discomfort.

2. \*\*Nerve stimulation\*\*: The nasal passages contain numerous nerve endings that can be stimulated by allergens, leading to the release of neurotransmitters like substance P. This can cause pain transmission to the brain, resulting in headaches or facial pain.

3. \*\*Sinus congestion and pressure\*\*: Allergic rhinitis often causes sinus congestion and pressure, which can lead to pain and discomfort in the face, particularly around the forehead and bridge of the nose.

4. \*\*Reflexive pain pathways\*\*: The trigeminal nerve, responsible for transmitting pain signals from the face, is closely connected with the nasal passages via a complex network of nerve fibers. When the nasal mucosa becomes inflamed or irritated due to allergic rhinitis, it can activate these reflexive pain pathways, leading to pain in the forehead and bridge of the nose.

5. \*\*Postnasal drip and irritation\*\*: Postnasal drip (the sensation of mucus running down the back of the throat) can cause irritation and discomfort in the nasal passages, sinuses, and surrounding tissues, contributing to pain and discomfort.

In your patient's case, the presence of postnasal drip, nasal congestion, and white, thin nasal discharge with blood streaks suggests that allergic rhinitis is a likely contributor to their symptoms. The fact that drinking warm water slightly alleviates the pain may indicate that the inflammation in the nasal passages is relieved by warming up the mucosa.

The right-sided shoulder and neck pain on the same side as the forehead pain could be related to referred pain, where pain from the nose or sinuses is referred to other areas of the body due to shared nerve innervation. This phenomenon is known as trigeminal neuralgia.

It's essential to note that this patient has been experiencing symptoms for a long time (five years) and has a history of using nasal spray for about five years, which may indicate chronic inflammation or irritation in the nasal passages. The fact that their anxiety and irritability worsen in cold winter days may also be contributing factors.

A proper diagnosis should be made by a healthcare professional, taking into account a thorough medical history, physical examination, and diagnostic tests (e.g., allergy testing, imaging studies) to confirm the presence of allergic rhinitis or sinusitis.

(Llama 3.2 3B+RAG) #AnswerB：

The patient's symptoms are a classic manifestation of allergic rhinitis, which is not being properly addressed by the use of nasal sprays. The nasal sprays may be providing temporary relief but are not addressing the underlying constitutional Lung Qi deficiency.

There are several reasons why allergic rhinitis can lead to recurrent pain near the forehead and bridge of the nose:

1. \*\*Nasal Congestion\*\*: Allergic rhinitis often leads to chronic nasal congestion, which can cause increased pressure on the sinuses. This pressure can radiate to the forehead, causing pain.

2. \*\*Postnasal Drip\*\*: Postnasal drip is a common symptom of allergic rhinitis. As it falls down the back of the throat, it can irritate the nasal passages and sinuses, leading to pain and discomfort in the frontal sinus area.

3. \*\*Sinusitis\*\*: The chronic inflammation caused by allergic rhinitis can lead to sinusitis. This is when the sinuses become inflamed and infected, causing pain, congestion, and discharge.

4. \*\*Dry Sinus\*\*: Allergic rhinitis can cause dryness in the nasal passages, leading to irritation and discomfort in the frontal sinus area.

5. \*\*Irritation of Trigeminal Nerve\*\*: The trigeminal nerve is responsible for transmitting pain signals from the face to the brain. Allergic rhinitis can irritate this nerve, leading to facial pain.

Given that the patient has been using nasal sprays for about five years and has increased postnasal drip in cold winter days, it's clear that they have not been managing their allergic rhinitis properly. The use of nasal sprays since the age of 18 is an indication of a constitutional Lung Qi deficiency, which is contributing to the patient's current symptoms.

In Chinese medicine diagnosis, right-sided sinusitis (frontal sinus) is described as Bi Yuan (sinusitis), with primary patterns of retention of cold fluid, Qi stagnation, and blood stasis. The secondary pattern of Lung Qi deficiency presents a condition of root deficiency and excess in manifestation.

Given the symptoms of recurrent pain near the right forehead and bridge of the nose, along with clear, thin nasal discharge, postnasal drip, nasal congestion, and white, thin nasal discharge with blood streaks, it's likely that the patient is experiencing sinusitis caused by allergic rhinitis.

The Chinese medicine diagnosis reveals a condition of root deficiency and excess in manifestation, which indicates that the patient has a constitutional Lung Qi deficiency. The use of nasal sprays since the age of 18 for about five years is an indication of this underlying pattern.

The pathogen accumulation in the nasal orifice leads to obstruction, causing stagnation. Prolonged retention of cold dampness in the nasal orifice causes Qi stagnation, which impedes blood circulation, resulting in nasal congestion and pain on the same side of the shoulder and neck. Postnasal drip entering the frontal sinus further causes right forehead stabbing pain due to Qi stagnation and blood stasis.

In this context, it seems that the patient's recurrent pain near the forehead and bridge of the nose is caused by allergic rhinitis, which has not been properly managed with nasal sprays. The use of nasal sprays since the age of 18 for about five years indicates a constitutional Lung Qi deficiency, which is contributing to the patient's current symptoms.

To effectively address this condition, the patient should consider alternative treatments such as acupuncture, herbal medicine, or other traditional Chinese medicine (TCM) therapies that can help restore balance to their lung function and alleviate symptoms of allergic rhinitis.

Comparison：(ChatGPT as a judge)

Answer B is better.

It provides a comprehensive explanation from both a Western medical perspective (allergic rhinitis causing sinusitis and pain) and a Traditional Chinese Medicine (TCM) viewpoint, focusing on Lung Qi deficiency, Qi stagnation, and blood stasis. It integrates the patient's long-term use of nasal sprays and explains the connection between their symptoms and TCM diagnosis, including patterns like cold fluid retention and Qi stagnation. Additionally, it offers a clearer treatment recommendation with a TCM focus, suggesting acupuncture or herbal medicine for restoring balance.