

Bi syndrome or Painful Obstruction

Painful obstruction is a blockage of channels by pathogenic factors of wind, damp, cold, heat, phlegm, or blood, which impairs the flow of blood and qi (energy). This is commonly found in joints and muscles but can occur in any area of the body including the organs.

Etiology and Pathology:

The external pathogenic influences of wind, damp, cold, or heat invade the body. When this occurs the movement of Qi (energy) and Blood is not smooth and the channels and collaterals become obstructed and stagnant. Accumulation of turbid phlegm or blood stasis in the channels penetrates deep into the joints, sinews or channels and gives rise to disease.

- 1. Deficient or weak constitution allows invasion by external pathogenic influences. Lowered body resistance.**
 - deficiency allows invasion of pathogens of Wind, Damp, Cold, Heat. The body is not strong enough to expel pathogens so they go deeper in the body and lodge there giving rise to painful obstruction.
 - If yang is deficient, the body's defenses are weak and readily injured by Wind, Cold, and/or Damp.
 - If yin is deficient, the body's defenses are weak and readily injured by heat.
- 2. Invasion of External Pathogens**
 - Stronger constitution, but live or work for a long period of time in a cold, damp, windy or hot environment with inadequate protection from pathogenic influences or prolonged exposure.
- 3. Trauma**
 - Trauma injures the channels and vessels => blood stag
 - ⇒ obstruction of channels leads to poor circulation of qi and blood then to swollen painful joints
 - ⇒ malnourishment of muscles and skin results in numbness and sensory disorders
- 4. Chronic Phase**
 - Blood and qi circulation is impaired => blood stasis and/or damp congeal into phlegm. Phlegm and blood stasis can combine together or with external pathogens to obstruct channels and invade the bones. The swelling or deformity of joints at later stages is phlegm obstruction or blood stasis at the level of the joints.

Clinical Manifestations:

- pain, aching, numbness, paresthesia, heaviness, difficult or reduced movement, onset of symptoms may be gradual or sudden..

Pain is the master symptom and is considered the result of dysfunction of circulation of qi and blood

Excess painful obstruction

1. Wind is predominant

- Pain - aching in muscles and joints of limbs, moving pain => protective/wei qi and yang are weak and easy for the wind to penetrate the pores and skin, muscles and channels (the exterior), wind moves therefore pain not in a fixed location.
- Location of often in the upper limbs, shoulders and back; wind is a yang pathogen that is why these areas are commonly affected. The wind invades, enters the channels and blocks the flow of qi and blood producing aches and pain and impaired movement.

2. Severe painful obstruction - cold predominates

- Pain in limbs, joints and muscles is excruciating and stabbing; fixed location, it is worse with cold, relieved by warm.
- Pain increases at night and better during the day.
- ROM - joints difficult to flex or extend
- Painful area is neither hot or red, often feels cold to the patient
- cold is a yin pathogen that tends to linger and stagnate = severe and fixed pain
- cold disrupts flow of qi and blood in channels = pain and spasms leads to difficult movement.

- cold slows down circulation of qi and blood, it contracts and congeals => flow becomes choppy which aggravates the pain
 - pathogenic cold (cold weather, application of ice, eating and drinking lots of cold) damages the yang qi further causing the stagnation of qi and blood => stasis of blood and phlegm damp ensue => aggravates symptoms
 - cold and damp frequently combine = pain with sensation of cold, heaviness or superficial swelling and numbness
- 3. Fixed painful obstruction** - damp is predominant
- Pain: relatively fixed location, sensation of heaviness, skin and muscles may feel numb or there may be swelling or edema in the affected area
 - damp is a yin pathogen, it is heavy, turbid and sticky => pain is heavy, lingers and is fixed, the stagnation of qi and blood by damp create a sensation of heaviness and numbness, movement becomes limited
 - pathogenic dampness is due to the invasion of external damp via the exterior or the pooling of body fluids under pathological conditions. Dysfunction of the spleen's transformation and transportation function is often present.
 - Topical application of warmth and massage circulates and spreads yang qi and frequently reduces pain and numbness for a short time.
- 4. Hot painful obstruction**
- Pain in joints with local sensation of redness and heat; intense sensation of pain, tightness and swelling. Painful to touch
 - Severe loss of mobility, difficult to get out of bed and move around
 - Pain decreases in day and increases at night
 - Heat sx: fever, thirst, irritability, desire to seek cold and avoid warm
 - heat is yang and insistent and pressing in nature
 - penetrates the channels and vessels it consumes qi and blood, heat damages fluids
- 5. Stubborn Painful obstruction**
- chronic, longterm with repeated recurrences
 - Pain is excruciating, fixed location, ROM is impaired, +/- painful numbness, joints are stiff and deformed, the area around joints may be slightly dull and purplish
 - When painful obstruction is chronic, the channels' blood and qi is slowed down and obstructed by presence of external pathogenic factors. This results in blood stasis and turbid phlegm which settles deep in the joints and is difficult to eradicate. Phlegm and blood stasis combine and further obstruct, the pain becomes severe and qi and blood cannot circulate which results in numbness.

Deficient Painful Obstruction

1. Deficient Blood and Qi

- Over time the blood and qi become depleted and insufficient, the normal qi is weak and pathogenic influences are retained => The tendons and bones become malnourished, pain lingers, there are spasms and muscle twitching
- Because of the deficiency is easy for pathogenic influence to reinvade (WCD) and reactivate the pathogenic process
- Chronic, long term
- Pain intensity varies, worse with movement

2. Deficient yang painful obstruction

- Chronic, Joints are painful, numb and deformed, distinct local sensation of cold, muscles and tendons are atrophied.
- when patient has been ill for a long time, the yang qi becomes insufficient
- wei qi is deficient and easy for pathogenic influences to invade and penetrate deeply
- when pathogenic influences are retained for long periods of time there is a lack of nourishment to joints and tendons because qi and blood fail to circulate and then the joints and muscles become deformed and the tendons and muscles atrophy

3. Deficient yin painful obstruction

- Painful obstruction is prolonged without improvement. Pain worse at night and improve during the day
- Bones and joints are painful, sinews and vessels are tight, pain and contractions are aggravated by movement
- When illness is chronic the yin will become weak and result in insufficiency of Liver and Kidney
- When blood is deficient it can generate wind, which can lead to tension and tightness of tendons and vessels.
- The lack of nourishment leads to pain in bones and tendons that is aggravated by movement.