

Degrees of Difference:
Exploring
Autoimmune
Pathologies,
Biomedicine and
TCM

Uretz/Hoyt
2010

OVERVIEW OF IMMUNE SYSTEM
TYPES OF AUTOIMMUNE DISORDERS

AUTOIMMUNE DISORDERS

WHAT IS THE IMMUNE SYSTEM?

The immune system is the body's means of protection against microorganisms and other "foreign" substances. It is composed of two major parts. One component, B lymphocytes, produces antibodies, proteins that attack "foreign" substances and cause them to be removed from the body; this is sometimes called the humoral immune system. The other component consists of special white blood cells called T lymphocytes, which can attack "foreign" substances directly; this is sometimes called the cellular immune system.

It takes time for both components of the immune system to develop. T lymphocytes become protective, and antibodies are developed after a person is exposed to specific "foreign" threats. Over a lifetime, the immune system develops an extensive library of identified substances and microorganisms that are cataloged as "threat" or "not threat."

Normally, the immune system can distinguish between "self" and "not self" and only attacks those tissues that it recognizes as "not self." Sometimes this process comes into conflict with a biomedical procedure. When a person is given an organ transplant, the immune system will correctly recognize the new organ as "not self" (unless it is from an identical twin) and will attack it in a process called rejection.

WHAT ARE AUTOIMMUNE DISORDERS?

Autoimmune disorders are diseases caused by the body producing an inappropriate immune response against its own tissues. Sometimes the immune system will cease to recognize one or more of the body's normal constituents as "self" and will create autoantibodies – antibodies that attack its own cells, tissues, and/or organs. This causes inflammation and damage and it leads to autoimmune disorders.

The cause of autoimmune diseases is unknown, but it appears that there is an inherited predisposition to develop autoimmune disease in many cases. In a few types of autoimmune disease (such as rheumatic fever), a bacteria or virus triggers an immune response, and the antibodies or T-cells attack normal cells because they have some part of their structure that resembles a part of the structure of the infecting microorganism.

Autoimmune disorders fall into two general types: those that damage many organs (*systemic autoimmune* diseases) and those where only a single organ or tissue is directly damaged by the autoimmune process (*localized*). However, the distinctions become blurred as the effect of localized autoimmune disorders frequently extends beyond the targeted tissues, indirectly affecting other body organs and systems.

TYPES OF AUTOIMMUNE DISEASES

Systemic Autoimmune Diseases

Rheumatoid arthritis (RA) and Juvenile RA (joints; less commonly lung, skin)

Lupus [Systemic Lupus Erythematosus] (skin, joints, kidneys, heart, brain, red blood cells, other)

Sclerodema (skin, intestine, less commonly lung)

Siogren's syndrome (salivary glands, tear glands, joints)

Goodpasture's syndrome (lungs, kidneys)

Wegener's granulomatosis (blood vessels, sinuses, lungs, kidneys)

Polymyalgia Rheumatica (large muscle groups)

Guillain-Barre syndrome (nervous system)

Localized Autoimmune Diseases

Type 1 Diabetes Mellitus (pancreas islets)

Hashimoto's thyroiditis, Graves' disease (thyroid)

Celiac disease, Crohn's disease, Ulcerative colitis (GI tract)

Multiple sclerosis (There is still some debate as to whether MS is an autoimmune disease.)

Addison's disease (adrenal)

Primary biliary cirrhosis, Sclerosing cholangitis, Autoimmune hepatitis (liver)

Temporal Arteritis/ Giant Cell Arteritis (arteries of the head and neck)

WIND DAMP HEAT

TOXIC HEAT

INTERNAL LIVER WIND

YIN DEFICIENCY INTERNAL HEAT

KIDNEY/ SPLEEN YANG DEFICIENCY

QI STAGNATION & BLOOD STASIS

LUPUS

BIOMEDICAL DEFINITION

Lupus is a chronic inflammatory disease that occurs when the body's immune system attacks it's own tissues and organs.

Inflammation caused by lupus can affect many different body systems, including; joints, skin, kidneys, blood cells, heart and lungs.

Lupus occurs more frequently in women (90%).

Systemic lupus erythematosus

Discoid lupus erythematosus

Drug-induced lupus erythematosus

Neonatal lupus

Systemic lupus erythematosus (SLE) is the most common and serious form of lupus. There is no biomedical cure for lupus, but there exists treatment options to alleviate symptoms.

BIOMEDICAL CAUSES

- Lupus is an autoimmune disease, which means that instead of just attacking foreign substances, such as bacteria and viruses, the immune system also turns against healthy tissue. This leads to inflammation and damage to various parts of the body, including the joints, skin, kidneys, heart, lungs, blood vessels and brain.
- Biomedicine has not determined the cause of autoimmune diseases, such as lupus. It's likely that lupus results from a combination of genetics and environmental factors. Doctors believe that one may inherit a predisposition to lupus, but not lupus itself. Instead, people with an inherited predisposition for lupus may only develop the disease when they come into contact with something in the environment that can trigger lupus, such as a medication or a virus.

BIOMEDICAL SYMPTOMS

No two cases of lupus are exactly alike. Signs and symptoms may come on suddenly or develop slowly, may be mild or severe, and may be temporary or permanent. Most people with lupus have mild disease characterized by episodes — called flares — when signs and symptoms get worse for a while, then improve or even disappear completely for a time.

- Fatigue
- Fever
- Weight loss or gain
- Joint pain, stiffness and swelling
- Butterfly-shaped rash (malar rash) on the face that covers the cheeks and bridge of the nose
- Skin lesions that appear or worsen with sun exposure
- Mouth sores
- Hair loss (alopecia)
- Fingers and toes that turn white or blue when exposed to cold or during stressful periods (Raynaud's phenomenon)
- Shortness of breath
- Chest pain
- Dry eyes
- Easy bruising
- Anxiety
- Depression
- Memory loss

TCM ETIOLOGY

Lupus manifests differently in individual patients. Often the initial symptoms resemble external wind damp heat with high fever or severe joint pain that changes in location. In other patients, symptoms of internal heat arise due to diet of spicy and greasy foods, pharmaceutical use or imbalance of the seven emotions (primarily anger.) The excess toxic heat causes constant high fever and red macular eruptions. In some case, the internal heat erupts as liver fire causing convulsions and derangement of the heart and mind. Internal heat can consume the yin fluids of the body leading to yin deficiency with symptoms of night sweats, low grade fever, and five heart heat damage to the skin and hair. In other case, the damp heat damages the function of the spleen leading to spleen kidney qi and yang deficiency with severe cold sensation, cyanosis of the lips and extremities. Damage to the qi and encumbrance by damp can also lead to qi stagnation and blood stasis, with severe pain and numbness of the extremities.

TCM SYMPTOMS**Wind-Heat-Damp**

- Initial onset acute stage
- Severe joint pain multiple sites
- Swelling of joints
- Pain changes location
- Fever, dry throat
- Oral ulcer
- Fatigue weakness of limbs
- T = Red with yellow slimy coat
- P = Wiry, slippery

Internal Toxic Heat

- High continuous fever
- Red macules on face
- Lack of strength
- Joint aches
- Delirium
- Oral sores, red throat
- Dry stools
- Bleeding (nose, anal)
- Dark yellow or red urine
- Thirst for cold drinks
- T = Crimson, yellow dry coat
- P = Rapid, wiry

Liver fire with internal wind

- Persistent high fever
- Agitation, restlessness
- Crying, laughing
- Convulsions, seizures
- Paralysis or fasciculations
- Urinary retention or incontinence
- T = Red with scorched yellow or peeling coat
- P = Rapid, Wiry

TCM PROTOCOLS**Wind-Heat-Damp**

- Dispel wind, drain damp, clear heat, remove blockages.

LI 11
DU 14
SP 9
Ashi

LI4
LI 11
SP 9
UB12
UB13
ST44
Ashi

Internal Toxic Heat

- Clear heat, resolve toxins, cool blood, nourish yin, resolve stasis, disperse macules.

ShiXuan
LI 4
DU 10
UB 40
PC 3

12 Jing-Well
DU 14
LI 11
SP 10
SI 18

Liver fire with internal wind

- Clear liver, extinguish wind, calm shen, settle tetany.

LV 3
GB 20
GB 34
LI 11

LV 2
GB 34
PC 7
DU 9
DU 26

TCM SYMPTOMS**Yin Xu with Heat**

- Chronic low grade fever
- Five heart heat
- Tidal redness of face
- Night sweats
- Fatigue, weakness
- Light red skin lesions
- Dry falling hair
- Tinnitus
- Scanty urine (maybe red)
- Dry stools
- Irregular Menstruation
- T = Red, mirror
- P = Thready, rapid

Spleen-Kidney Yang Xu

- Cold limbs and body
- Occasional tidal heat
- Fatigue, weakness
- Disinclination to speak
- Abdominal distention
- Vomiting, diarrhea
- Somber white complexion
- Weak low back and knees
- Swollen joints, superficial edema
- Numb blueish extremities
- Pale lesions
- T = Pale, swollen white coat
- P = Soggy, deep, fine

Qi Stagnation & Blood Stasis

- Cyanosis of extremities
- Purple lesions
- Depressed disciform lesions
- Scaly cracked skin
- Joint and muscle pain
- Depression
- Menstrual irregularity
- Dysmenorrhea
- T = Purple with purple sublingual veins
- P = Wiry

TCM PROTOCOLS**Yin Xu with Heat**

- Tonify kidney, nourish yin, clear heat.

KD 7
HT 6
UB23
KD 2

KD 1
PC 8
REN 17
SP 6
LV 2
SISHENCONG

Spleen-Kidney Yang Xu

- Tonify kidney and spleen, warm yang, disinhibit water.

KD 3
REN 4
ST 36
SP 9

UB 20
UB 23
DU 4
SP 9
SP 3
LU 7

Qi Stagnation & Blood Stasis

- Quicken blood, transform stasis, rectify qi, free the flow of luo vessels.

SP 6
LI 4
UB 17
DU 10

SP 10
LI 4
LV 3
GB34
ASHI
Jing-Well

TCM CASE STUDY**Name:** Helena**Sex:** Female**Age:** 38**Nationality:** Namibia**Marital Status:** Married**Complainer:** The patient herself**Birthplace:** Namibia**Profession:** Teacher**Date of Admission:** May 28, 2010**Date of Record:** May 29, 2010**Onset Season:** Grain Full

- Major complaint: abnormality of albuminuria, hematuria and fatigue for 2 years
- Disease history: No history of hepatitis, trigeminal neuritis. No tuberculosis, schistosoma and other infectious diseases. No history of trauma and surgery. No allergic history of food such as soap, seafood, and medicines like penicillin. No history of blood transfusion. The history of preventive vaccination was unknown.
- Personal history: She was born in Namibia. No addiction of wine drinking. She does not smoke. Her living environment is not bad. She is moderate in temper.
- Family history: Her parents are both healthy.

Medical Record

- Date: May 29, 2010 Time: 15: 00 p. m.
- Helena, a 38-year-old female, has suffered from SLE accompanied with abnormality of albuminuria, hematuria and fatigue for 2 years. She was hospitalized in our hospital for treatment at 15: 00 p. m. on May 28, 2010.

TCM CASE STUDY**Diagnosis**

- 1. The patient has suffered from SLE accompanied with abnormality of albuminuria, hematuria and fatigue for 2 years.
- 2. In August 2008, the patient was found out abnormality of albuminuria, hematuria by the regular examination of urine. She was diagnosed with SLE and lupus nephritis by renal biopsy and other examinations. She started to get treatment with Endoxam but without obvious improvement. She went to vomit after taking the medicine. Her sleep got worse and would wake up just three hours after sleeping. And it was difficult to sleep again. In 2002, the patient got hysterectomy due to ovarian cyst. She has suffered from asthma for 5 years.
- Her present symptoms were as follow: Slightly hair loss, repeated ulcer in the mouth, some pains and distention in the right rib, fatigue, weakness in the body, upset, dry and bitter feeling in the mouth, bad appetite and sleep. The patient was easy to wake up after sleeping. She urinated one to two times at night. The bowel movement was normal.
- 3. T 35.6°C, R 20 times/minute, P 82 times/minute, BP 100/60mmHg.
- 4. She grew normally with common nutrition. Her mind was clear. She had an expression of chronic illness and tiredness. Her body was in a positive posture and she was cooperative with clear mind.
- 5. There were three ulcers in the mouth and tenderness on the right rib. The patient felt painful in the region of the kidneys. Black tongue body and white tongue coating.

TCM CASE STUDY

Diagnostic Basis:

- TCM: The patient's abnormality of hematuria was the symptom of the damage of the network vessels of the kidneys. The repeated ulcers in the mouth, vexation, dry and bitter mouth were the symptoms of the spreading and invasion of heat toxin. The damage of the network vessels of the kidneys and the invasion and spreading of heat toxin lead to the fatigue, weakness, bad appetite and sleep. So she was diagnosed with Turbidity of Kidneys.
- Western Medicine: The patient has suffered from SLE accompanied with abnormality of albuminuria, hematuria and fatigue for 2 years. With the diagnosis of the local hospital, she was diagnosed with SLE and lupus nephritis.

Diagnostic Differentiation:

- TCM: The patient's Turbidity of Kidneys should be differentiated from bloody stranguria. Bloody stranguria's main symptoms are blood in urine and dribbling urine. So they are not difficult to be distinguished.
- Western Medicine: The patient's SLE should be differentiated from class of lupus syndrome which is due to medication. They have some similar symptoms, but the connection of SLE with medicines is not so obvious. And its clinic symptoms are slight. The clinic symptoms would disappear after stopping the medicines. So they are not difficult to be distinguished.

Diagnosis:

- TCM (Traditional Chinese Medicine) diagnosis: Turbidity of Kidneys
- Symptom identification: spread and invasion of heat toxin, damage of the network vessels of the kidneys
- Western Medicine diagnosis: SLE and lupus nephritis

IMAGES

A typical sign of lupus is a red, butterfly-shaped rash over the face's cheeks and nose, often following exposure to sunlight.

WIND COLD DAMP

WIND DAMP HEAT

LIVER QI STAGNATION WITH HEAT

QI XUE XU WITH PHELG M STASIS

LIVER XUE AND KIDNEY YIN-YANG XU

RHEUMATOID ARTHRITIS

BIOMEDICAL DEFINITION

Rheumatoid arthritis is a chronic inflammatory disorder that most typically affects the small joints in hands and feet. Unlike the wear-and-tear damage of osteoarthritis, rheumatoid arthritis affects the lining of joints, causing a painful swelling that can eventually result in bone erosion and joint deformity.

An autoimmune disorder, rheumatoid arthritis occurs when the immune system mistakenly attacks the body's own tissues. In addition to causing joint problems, rheumatoid arthritis can also affect the whole body with fevers and fatigue.

Rheumatoid arthritis is two to three times more common in women than in men and generally occurs between the ages of 40 and 60. While there's no biomedicine cure for rheumatoid arthritis, western treatment options have expanded greatly in the past few decades.

BIOMEDICAL CAUSES

Rheumatoid arthritis occurs when the immune system attacks the synovium, the lining of the membranes that surround the joints. The resulting inflammation thickens the synovium, which can eventually invade and destroy the cartilage and bone within the joint. The tendons and ligaments that hold the joint together weaken and stretch. Gradually, the joint loses its shape and alignment.

Biomedical doctors don't know what starts this process, although a genetic component appears likely. While one's genes don't actually cause rheumatoid arthritis, they can make someone more susceptible to environmental factors — such as infection with certain viruses and bacteria — that may trigger the disease.

BIOMEDICAL SYMPTOMS

Signs and symptoms of rheumatoid arthritis may include:

Joint pain

Joint swelling

Joints that are tender to the touch

Red and puffy hands

Firm bumps of tissue under the skin on your arms (rheumatoid nodules)

Fatigue

Morning stiffness that may last for hours

Fever

Weight loss

Smaller joints affected first

Early rheumatoid arthritis tends to affect the smaller joints first — the joints in wrists, hands, ankles and feet. As the disease progresses, the shoulders, elbows, knees, hips, jaw and neck also can become involved. In most cases, symptoms occur bilaterally.

TCM ETIOLOGY

Rheumatoid Arthritis manifests in small joints of the distal extremities as weakness of qi and blood. This weakness can fail to nourish the extremities allowing for a failure of the wei qi to protect the body from external wind, cold, heat, and damp. Additionally, internal heat may arise when the liver qi is stagnant . This heat accumulates in the joints causing swelling and pain. Deficiency of spleen and kidneys combined with consumption of sweet, salty and greasy foods, and/or living in a damp environment can lead to the build up of dampness. Dampness can transform into phlegm thereby blocking the free flow of qi and blood. Finally, internal heat can dry the liver blood and deplete the kidney yin, thus ultimately exhausting the yang.

Wind-cold-damp

- Initial stage of disease
- Joints swollen not red
- Worse with cold weather
- Aversion to wind
- Loose stools
- Frequent clear urine

T = Pale, thin white coat

P = Deep, wiry, tight

Expel wind, drain damp, warm channels

GB20
UB17
UB23
REN4

GB20
UB13
SP9
SP3
LI4
ASHI

Wind-damp-heat

- Acute stage
- Swollen joints
- Pain and restricted movement
- Heaviness
- Red joints
- Warm to touch
- Thirst without desire to drink
- Fever
- Sweating
- Scanty, dark urine

T = Red, thin yellow coat

P = Slippery, rapid

Clear heat, drain damp, dispel wind
Free luo vessels

DU14
LI11
LI4
SJ5

LI11
ST44
LI4
UB40
ASHI

TCM SYMPTOMS

TCM SYMPTOMS

Liver qi stagnation with heat

- Red swollen joints
- Pain, stiffness, inflexibility
- Some relief with cold
- Dry mouth and throat
- Bitter taste in mouth
- Insomnia
- Agitation

T = Red, slimy yellow coat

P = Fine, wiry, rapid

Qi xue xu with phlegm stasis

- Later stages of disease
- Deformed joints
- Inhibited movement
- Somber white complexion
- palpitations
- SOB
- Fatigue

T = Pale, thin white coat

P = Deep, fine, wiry

Liver xue and Kidney yin-yang xu

- Joint and muscle atrophy
- Deformation and inflexibility
- Constant deep ache
- Worse with cold
- Dizziness
- Tinnitus
- Copious clear urine
- Nocturia
- Low back and knee pain

T = Pale, thin white coat

P = Deep, weak, slow

Clear heat, free luo vessels

LI11
LI4
REN4

LI4
LV3
GB34
DU14
12 JING-WELL

Tonify qi and xue, transform phlegm
Free the channels and collaterals

ST36
SP6

ST36
SP6
UB17
PC6
ST40
ASHI

Tonify liver and kidney, free channels

LI11
LI4
REN4

UB17
UB18
UB23
DU4
KD1
ASHI

CASE STUDY

Name: Saeed

Sex: Male

Age: 39

Nationality: Muslim

Marital Status: Married

Complainer: The patient himself

Birthplace: Iran

Profession: Physician

Date of Admission: February 10, 2010

Date of Record: February 10, 2010

Onset Season: Vernal equinox

First Medical Record

- Date: February 10, 2010 Time: 4: 00 a. m.
- Saeed, a 39-year-old male, has suffered from rheumatoid arthritis, accompanied with the symptoms of the joint pains and swelling for 10 years. He was hospitalized in our hospital for treatment at 4: 00 a. m. on February 10, 2010.

CASE STUDY**Diagnosis:**

- 1. The patient had the running pains of the joints throughout the whole body for 4 years.
- 2. In 1995, the patient began to have pains in the left shoulder after getting wet in the rain. The pains had influenced his movement of the shoulder. He had taken acupuncture treatment in his local place, and had gotten some improvement. The pains had reduced. In 2007, the shoulder pains were aggravated. Slowly, it turned into the pains of the joints all over the body. There wasn't a diagnosis in his local place. In the last three years, he had a big working pressure. He often felt dizzy and heavy sense in the afternoon, sometimes had short confusion.
- His health conditions when got to our hospital were bellow: The running pains of the joints which were related to the changes in the weather all over the body. The pains were mainly pulling pains. The joints felt burning. He felt good in the warm and gentle weather. There was no swelling, no numbness in the limbs, no feeling of heaviness. His mouth was a bit dry. His sleep condition was not good, and he slept shallowly. His urination and stool were normal.
- 3. T 36.3°C, R 20 times/minute, P 80 times/minute, BP 110/70mmHg.
- 4. He grew normally with common nutrition. His mind was clear. His body was a bit thin. No yellow appeared in the skin and sclerotic. No swelling of superficial lymph nodes. No goiter. No thoracic deformity.
- 5. Sound of breath was bilaterally normal on auscultation. No sound of pleural friction. Heart border was normal. Heart beat was 80 times/minute. Cardiac rhythm was regular. No pathological murmurs on auscultation. The abdomen is soft, no press pains and no rebound tenderness.
- 6. The patient had the pains on the joints of the shoulder when stretching or raising the arms. There were tenderness in the acromion and medial epicondyle of humerus. No deform and swollen joints in the spine and limbs. His tongue body was a bit deep-red with thin and yellow coating. The pulse was wiry and soft.

CASE STUDY

Diagnostic Basis

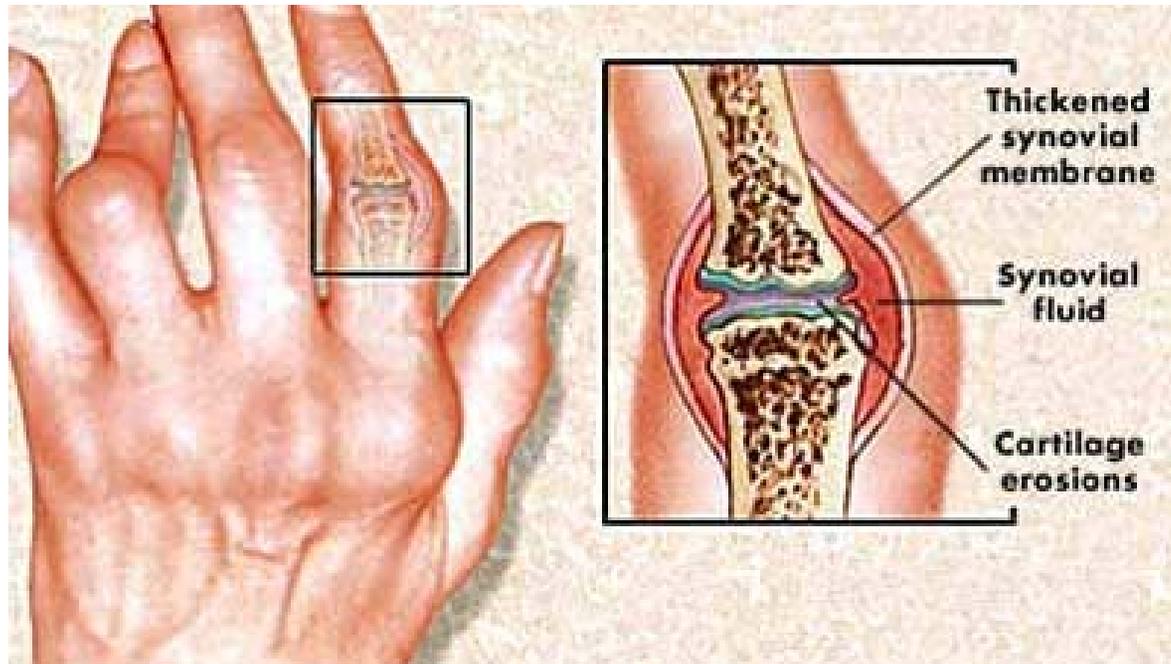
- TCM: After getting wet in the rain, the patient had had dampness evil which lead to obstruction of channels and network vessels. Once the channels and network vessels are obstruct, the joints and movement of the limbs will have pains. So from the aspect of TCM, it was impediment pattern.
- Western Medicine: The patient had the running pains of the joints throughout the whole body for 4 years. The patient had the pains of the shoulder joints when stretching or raising the arms. There were tenderness in the acromion and medial epicondyle of humerus. He was diagnosed as rheumatoid arthritis.

Diagnostic Differentiation:

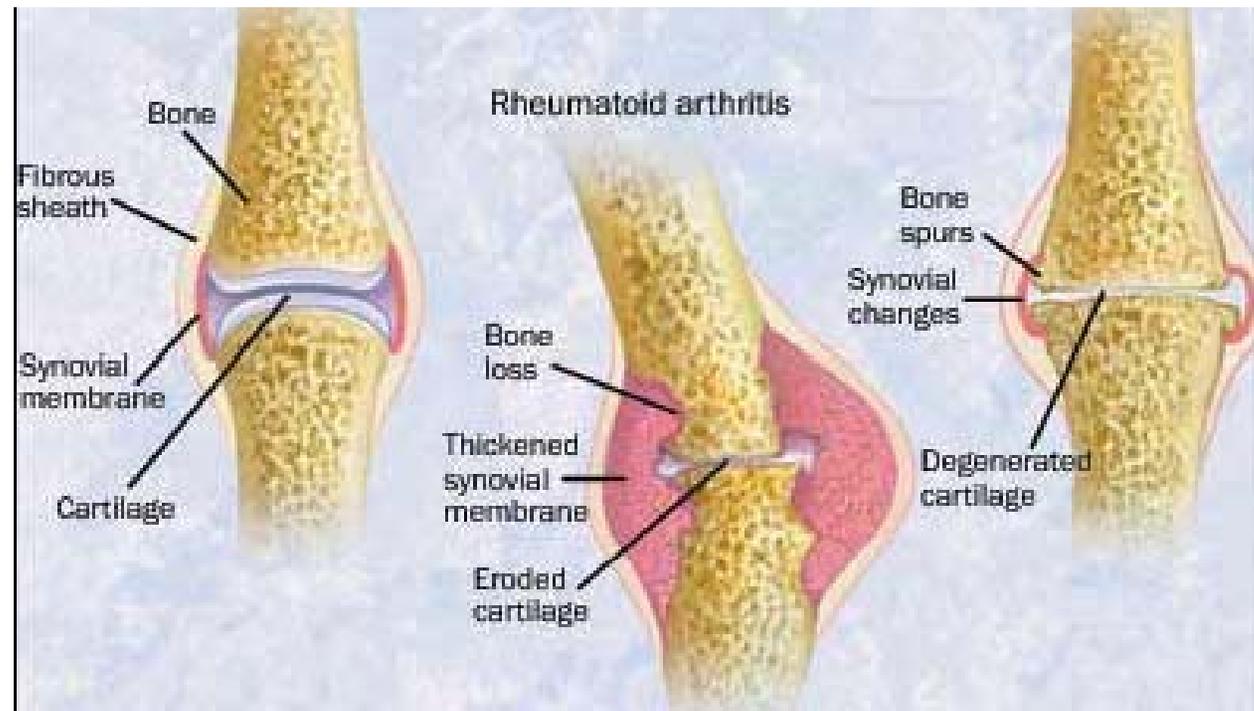
- TCM: The patient's impediment pattern should be differentiated from wilting pattern. Wilting pattern is mainly characterized by limp, emaciated sinews and bones, with weakness of the muscles. However, impediment pattern is generally characterized by joint pains. So they are not difficult to be distinguished.
- Western Medicine: The patient's rheumatoid arthritis should be differentiated from hyperplastic osteoarthritis.

Diagnosis:

- TCM (Traditional Chinese Medicine) diagnosis: Impediment pattern.
- Symptom identification: obstruction of wind-damp, inhibition of the joints.
- Western Medicine: Rheumatoid Arthritis

IMAGES

Rheumatoid arthritis can cause pain, swelling and deformity. As the tissue that lines joints (synovial membrane) becomes inflamed and thickened, fluid builds up and joints erode and degrade.

IMAGES

Osteoarthritis, the most common form of arthritis, involves the wearing away of the cartilage that caps the bones in your joints. With rheumatoid arthritis, the synovial membrane that protects and lubricates joints becomes inflamed, causing pain and swelling. Joint erosion may follow.

INTERNAL PHLEGM HEAT
DAMP HEAT DAMAGES JIN
XUE XU WITH INTERNAL WIND
LIVER XUE AND KIDNEY YIN XU
QI AND YIN XU

MULTIPLE SCLEROSIS

BIOMEDICAL DEFINITION

Multiple sclerosis (MS) is a potentially debilitating disease in which the body's immune system eats away at the protective sheath that covers its nerves. This interferes with the communication between the brain and the rest of the body. Ultimately, this may result in deterioration of the nerves themselves, a process that's not reversible.

Symptoms vary widely, depending on the amount of damage and which particular nerves are affected. People with severe cases of multiple sclerosis may lose the ability to walk or speak. Multiple sclerosis can be difficult to diagnose early in the course of the disease, because symptoms often come and go — sometimes disappearing for months.

Although multiple sclerosis can occur at any age, it most often begins in people between the ages of 20 and 40. Women are more likely to develop multiple sclerosis than are men.

BIOMEDICAL CAUSES

Multiple sclerosis is an autoimmune disease, where the body's immune system attacks its own tissues. In multiple sclerosis, this process destroys myelin — the fatty substance that coats and protects nerve fibers in the brain and spinal cord.

Myelin can be compared to the insulation on electrical wires. When myelin is damaged, the messages that travel along that nerve may be slowed or blocked.

Biomedical doctors and researchers don't understand exactly why multiple sclerosis occurs in some people and not others. They believe a combination of factors, ranging from genetics to childhood infections, may play a role.

BIOMEDICAL SYMPTOMS

- Signs and symptoms of multiple sclerosis vary widely, depending on the location of affected nerve fibers. Multiple sclerosis signs and symptoms may include:
- Numbness or weakness in one or more limbs, which typically occurs on one side of the body at a time or the bottom half of the body
- Partial or complete loss of vision, usually in one eye at a time, often with pain during eye movement (optic neuritis)
- Double vision or blurring of vision
- Tingling or pain in parts of your body
- Electric-shock sensations that occur with certain head movements
- Tremor, lack of coordination or unsteady gait
- Fatigue
- Dizziness
- Most people with multiple sclerosis, particularly in the beginning stages of the disease, experience relapses of symptoms, which are followed by periods of complete or partial remission. Signs and symptoms of multiple sclerosis often are triggered or worsened by an increase in body temperature.

TCM ETIOLOGY

- Multiple Sclerosis is a form of wei syndrome in TCM where flaccidity and atrophy occur along with loss of motor function,
- The primary causative factors in MS are damp and heat. Living in a damp environment, consumption of greasy and spicy foods, and weakness of spleen qi can lead to the accumulation of damp which impedes the flow of qi throughout the body resulting in numbness and loss of function. Alcohol and drug use can cause heat in the interior. Internal toxic heat can injure the qi, blood and yin and cause weakness. Moreover, heat evil can congeal fluids leading to phlegm blocking the channels and collaterals.

TCM SYMPTOMS**Internal phlegm heat**

- Atrophy, weakness of extremities
- Mild enduring fever
- Numbness, paralysis
- Head distension
- Decreased visual acuity
- Nausea, vomiting
- Yellow phlegm in throat
- Thirst without desire to drink
- T = Red, yellow slimy coat
- P = Slippery, wiry, rapid

Damp-heat damages jin

- Heaviness
- Fatigue
- Weakness of limbs
- Chest and abdominal fullness
- Foul smelling stools
- Burning painful urine
- T = red, yellow slimy coat
- P = Slippery, rapid

TCM TREATMENT**Internal phlegm heat**

Clear heat transform phlegm,
open orifices, free luo vessels

DU24
DU20
DU16
DU10
DU6
DU4
DU1
ST40
ST44
SP9

SISHENCONG
DU16
HUATOJIAJI
PC6
ST40
ST44
LV2
YANGMING ON LIMBS

Damp-heat damages jin

Clear heat , drain damp

DU24
DU20
DU16
DU10
DU6
DU4
DU1
SP9
REN12
REN3

DU20
DU16
HUATOJIAJI
PC6
SP9
GB34
LI11
YANGMING ON LIMBS

TCM SYMPTOMS**Xue xu with internal wind**

- Weak eyesight
- Insomnia
- Weak limbs
- Difficulty standing or moving
- Dizziness, tinnitus
- Lusterless complexion
- Pale nails
- T = Pale, white coat
- P = Wiry, fine

Liver xue and kidney yin xu

- Blurred or double vision
- Weak sore low back & knees
- Emaciated body
- Unsteady gait
- Dizziness, tinnitus
- 5 heart heat
- Yellow urine, dry stools
- T = Red, scanty coat
- P = Wiry, fine, rapid

TCM SYMPTOMS**Xue xu with internal wind**

Tonify blood & yin,
subdue yang, extinguish wind

DU24
DU20
DU16
DU10
DU6
DU4
DU1
UB17
UB20
UB23

UB17
SP4
PC6
SP6
LV8
GB41
DU16
HUATOJIAJI
YANGMING ON LIMBS

Liver xue and kidney yin xu

Supplement KD & LV
tonify blood & yin

DU24
DU20
DU16
DU10
DU6
DU4
DU1
KD3
KD7
UB18
UB23

SISHENCONG
SP6
KD3
LV8
UB17
DU16
HUATOJIAJI
YANGMING ON LIMBS

TCM SYMPTOMS**Qi and yin xu**

- Fatigue
- Weak limbs
- Reduced appetite, Abdominal bloating
- Easy bruising
- Loose stools
- Emaciation
- Low back& knee soreness
- Night sweats, malar flush
- T = Swollen, red tip or red, swollen
- P = Wiry, fine, rapid

Kidney yang xu

- Poor vision
- Bilateral leg weakness
- Cold limbs
- Loose stools, diarrhea
- Frequent urination or incontinence
- T = Pale, thin white coat
- P = Deep, fine

TCM SYMPTOMS**Qi and yin xu**

Tonify spleen qi & kidney yin

DU24
 DU20
 DU16
 DU10
 DU6
 DU4
 DU1
 UB20
 UB23
 ST36
 KD7

SISHENCONG
SP6
KD3
UB20
UB23
ST36
DU16
HUATOJIAJI
YANGMING ON LIMBS

Kidney yang xuWarm Yang, tonify kidney & spleen,
free luo vessels

DU24
 DU20
 DU16
 DU10
 DU6
 DU4
 DU1
 REN4
 UB23

SISHENCONG
REN4
REN6
UB23
UB52
DU4
DU16
HUATOJIAJI
YANGMING ON LIMBS

TCM CASE STUDY

- Dr H, 75 year old male, retired professor of dentistry, lives with wife and care-givers.
- Biomedical diagnosis: Multiple Sclerosis 30+ years
- Secondary diagnosis: Massive CVA July 2010
- Medical status: Hospice since CVA
- Main Complaint: loss of voice (intermittent; moves from barely audible whisper to quiet voice)
- Secondary complaints: Paralysis of 4 limbs, restless leg syndrome
- Prior complaint: Maxofacial pain prior to stroke
- Medications: Laxatives, Morphine, Anti convulsive medications, Blood thinners

TCM CASE STUDY**TCM Examination****Inquiry**

- Hot/cold = Neutral, hot until last 3-5 years
- Sleeps alot (using morphine)
- Appetite = Good, some coughing and sputum production when eating hot foods
- Thirst = Craves cold liquids
- Bowels/Urine = Uses laxatives, catheter
- Head/body = Little to no pain (morphine), paralysis of 4 limbs, RLS
- Vision/Hearing = No symptoms
- Skin/Hair = Slow to heal bed sores

Observation

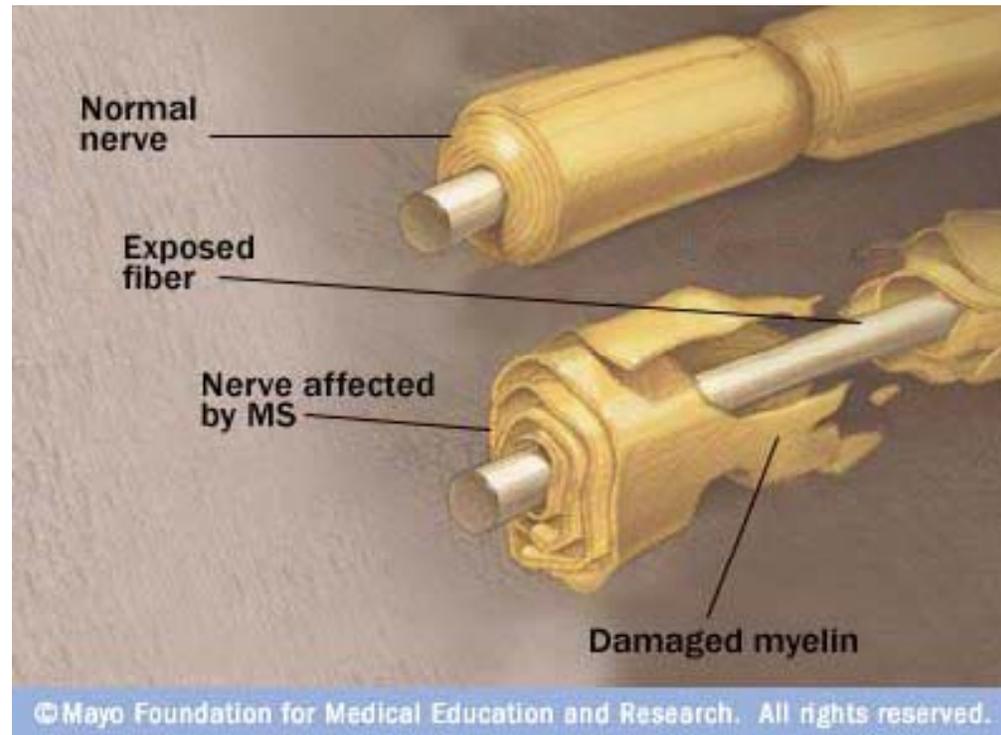
- Pale sunken complexion
- Atrophy of limbs
- Tongue = red swollen unable to extend

TCM CASE STUDY**Listening/smelling**

- Quiet voice or whisper
- No abnormal odors

Palpation

- Skin clammy, slightly cool
- Reduced sensory response on limbs
- Pulse: Deep, soft, most palpable in chi position

IMAGES

In multiple sclerosis, the protective coating on nerve fibers (myelin) is damaged and may eventually be destroyed. Depending on where the nerve damage occurs, MS can affect vision, sensation, coordination, movement, and bladder and bowel control.

SOURCES

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