

RCS 6080
Medical and Psychosocial Aspects of
Rehabilitation Counseling

Rheumatic Diseases

Rheumatoid Arthritis

- The prevalence of rheumatoid arthritis in most Caucasian populations approaches 1% among adults 18 and over and increases with age, approaching 2% and 5% in men and women, respectively, by age 65
- The incidence also increases with age, peaking between the 4th and 6th decades
- The annual incidence for all adults has been estimated at 67 per 100,000

Rheumatoid Arthritis

- Both prevalence and incidence are 2-3 times greater in women than in men
- African Americans and native Japanese and Chinese have a lower prevalence than Caucasians
- Several North American Native tribes have a high prevalence
- Genetic factors have an important role in the susceptibility to rheumatoid arthritis

Rheumatoid Arthritis

- Rheumatoid arthritis is an autoimmune disease in which the normal immune response is directed against an individual's own tissue, including the joints, tendons, and bones, resulting in inflammation and destruction of these tissues
- The cause of rheumatoid arthritis is not known
 - Investigating possibilities of a foreign antigen, such as a virus

Rheumatoid Arthritis

- Description
 - Morning stiffness
 - Arthritis of 3 or more joints
 - Arthritis of hand joints
 - Symmetric arthritis
 - Rheumatoid nodules
 - Serum rheumatoid factor
 - Radiographic changes
- A person shall be said to have rheumatoid arthritis if he or she has satisfied 4 of 7 criteria, with criteria 1-4 present for at least 6 weeks

Rheumatoid Arthritis

- Rheumatoid arthritis usually has a slow, insidious onset over weeks to months
- About 15-20% of individuals have a more rapid onset that develops over days to weeks
- About 8-15% actually have acute onset of symptoms that develop over days

Functional Presentation and Disability of RA

- In the initial stages of each joint involvement, there is warmth, pain, and redness, with corresponding decrease of range of motion of the affected joint
- Progression of the disease results in reducible and later fixed deformities
- Muscle weakness and atrophy develop early in the course of the disease in many people

Complications of Rheumatoid Arthritis

- Complications include:
 - Carpal tunnel syndrome, Baker's cyst, vasculitis, subcutaneous nodules, Sjögren's syndrome, peripheral neuropathy, cardiac and pulmonary involvement, Felty's syndrome, and anemia
- Treatment and Prognosis
 - Meds
 - Surgery
 - Rehab

Vocational Implications of Rheumatoid Arthritis

- Need to make frequent assessments of the person's functional ability as the disease progresses in order to provide realistic goals and support
- Motor coordination, finger and hand dexterity, and eye-hand-foot coordination are adversely affected
- Vocational goals dependent on fine, dexterous, or coordinated movement of the hand are not ideal

Vocational Implications of Rheumatoid Arthritis

- Most jobs requiring medium to heavy lifting are not desirable
- Activities such as climbing, balancing, stooping, kneeling, standing, or walking are hampered
- Extremes of weather or abrupt changes in temperature should be avoided – indoor controlled climate better

Seronegative Spondylarthropathy

- Consist of a group of related disorders that include Reiter's syndrome, ankylosing spondylitis, psoriatic arthritis, and arthritis in association with inflammatory bowel disease
- Occurs more commonly among young men, with a mean age at diagnosis in the third decade and a peak incidence between ages 25 and 34
- The prevalence appears to be about 1%
- The male-to-female ratio approaches 4 to 1 among adult Caucasians
- Genetic factors play an important role in the susceptibility to each disease

Seronegative Spondylarthropathy

- The cause is unclear, but there is strong evidence that the initial event involved interaction between genetic factors and environment factors, particularly bacterial infections
- Reiter's syndrome may follow a wide range of GI infections
- Bowel inflammation has been implicated in the pathogenesis of endemic Reiter's syndrome, psoriatic arthritis, and ankylosing spondylitis

Seronegative Spondylarthropathy

- The spondyloarthropathies share certain common features, including the absence of serum rheumatoid factor, an oligoarthritis commonly involving large joints in the lower extremities, frequent involvement of the axial skeleton, familial clustering, and linkage to HLA-B27
- These disorders are characterized by inflammation at sites of attachment of ligament, tendon, fascia, or joint capsule to bone (enthesopathy)

Ankylosing Spondylitis

- Chronic disease that primarily affects the spine and may lead to stiffness of the back. The joints and ligaments that normally permit the back to move become inflamed. The joints and bones may grow (fuse) together.
- The effects are inflammation and chronic pain and stiffness in the lower back that usually starts where the lower spine is joined to the pelvis or hip.
- Diagnosis is made through: (a) medical history including symptoms, (b) X-rays, and possibly (c) blood tests for HLA-B27 gene

Ankylosing Spondylitis

- Treatment options:
 - With early diagnosis and treatment, pain and stiffness can be controlled and may reduce fusing. In women, AS is usually mild and hard to diagnose.
 - Exercise
 - Medications: NSAIDs, Sulfasalazine
 - Posture management
 - Self-help aids
 - Surgery

Reiter's Syndrome

- Arthritis that produces pain, swelling, redness and heat in the joints. It can affect the spine and commonly involves the joints of the spine and sacroiliac joints. It can also affect many other parts of the body such as arms and legs. Main characteristic features are inflammation of the joints, urinary tract, eyes, and ulceration of skin and mouth.
- The symptoms are fever, weight loss, skin rash, inflammation, sores, and pain.

Reiter's Syndrome

- Reiter's often begins following inflammation of the intestinal or urinary tract. It sets off a disease process involving the joints, eyes, urinary tract, and skin. Many people have periodic attacks that last from three to six months. Some people have repeated attacks, which are usually followed by symptom-free periods.
- Diagnosis is made through a physical exam, skin lesions, and a test for the HLA-B27 gene

Reiter's Syndrome

- For different parts of the body, different treatments are used:
 - Medications: NSAIDs, antibiotics, topical skin medications
 - Eye drops
 - Joint protection
- Various symptoms are treated by healthcare specialists

Psoriatic Arthritis

- Causes pain and swelling in some joints and scaly skin patches on some areas of the body.
- The symptoms are:
 - About 95% of those with psoriatic arthritis have swelling in joints outside the spine, and more than 80% of people with psoriatic arthritis have nail lesions. The course of psoriatic arthritis varies, with most doing reasonably well.
 - Silver or grey scaly spots on the scalp, elbows, knees and/or lower end of the spine.
 - Pitting of fingernails/toenails
 - Pain and swelling in one or more joints
 - Swelling of fingers/toes that gives them a "sausage" appearance.

Psoriatic Arthritis

- Diagnosis may involve X-rays, blood tests, and joint fluid tests.
- Treatment options:
 - Skin care
 - Light treatment (UVB or PUVA)
 - Corrective cosmetics
 - Medications: glucocorticoids, NSAIDs, DMARDs (disease-modifying anti-rheumatic drugs)
 - Exercise
 - Rest
 - Heat and cold
 - Splints
 - Surgery (rarely)

Inflammatory Bowel Disease

- IBD consists of two separate diseases that cause inflammation of the bowel and can cause arthritis or inflammation in joints:
 - Crohn's Disease involves inflammation of the colon or small intestines.
 - Ulcerative Colitis is characterized by ulcers and inflammation of the lining of the colon.

Inflammatory Bowel Disease

- The amount of the bowel disease usually influences the severity of arthritis symptoms. Other areas of the body affected by inflammatory bowel disease include ankles, knees, bowel, liver, digestive tract, skin, eyes, spine, and hips.
- Treatment options:
 - Diet
 - Exercise
 - Medication: Corticosteroids, Immunosuppressants, NSAIDs, Sulfasalazine
 - Surgery

Functional Presentation and Disability of the Spondylarthropathies

- When the axial skeleton is involved, the initial symptom is morning stiffness and lower back pain
- As the disease worsens, there is progressive diminution of motion of the spine
- Eventually, the sacroiliac joints, lumbar, thoracic, and cervical spine become fused
- At this stage, the spine is no longer painful, but the person has lost all ability to flex or rotate the spine and generally develops a hunched-over posture with fused flexion of the cervical spine and flexion contracture of the hips to compensate for the loss of the lordosis curvature in the lumbar spine

Functional Presentation and Disability of the Spondylarthropathies

- The joints where the ribs attach to the vertebrae are also affected, and chest expansion and lung volume are decreased
- Frequently, peripheral joints are involved, and the pattern is usually asymmetric oligoarthritis involving primarily the large or medium joints, including the hips, knees, and ankles
- Rarely are smaller joints or the joints in the upper extremities involved
- Loss of motion of the spine or pain in the spine with motion generally affects a person's mobility

Functional Presentation and Disability of the Spondylarthropathies

- Walking remains unimpaired unless the hips and knees are affected
- Frequent stooping and bending become impossible
- A person with ankylosing spondylitis typically is able to continue vocational activity despite progressive stiffness, unless it requires significant back mobility or physical labor

Vocational Implications of the Spondylarthropathies

- The person should be considered for vocational or professional education as resources and interests dictate
- A stiff back will limit the person's rotation and flexion so that overall dexterity may be affected
- Tasks that require reaching or bending will be difficult and lifting over 10-15 pounds may cause increased back pain
- Climbing and balancing skills, stooping, and kneeling may be tolerated initially but become difficult as the disease worsens
- Need time to stretch spine frequently

Degenerative Joint Disease (Osteoarthritis)

- Most common rheumatic disease and is characterized by progressive loss of cartilage and reactive changes at the margins of the joint and in the subchondral bone
- The disease usually begins in one's 40s
- Prevalence increases with age and the disease becomes almost universal in individuals aged 65 and older
- Primarily affects weight-bearing joints such as the knees, hips, and lumbrosacral spine

Degenerative Joint Disease

- Cause is unclear
- Considered to be a “wear and tear” arthritis and is thought to occur as a consequence of some earlier damage or overuse of the joint
- Obesity is frequently associated with it
- Genetic factors play a role in the development that is sex-influenced and dominant in females, resulting in an incidence 10 times greater than in men
- The final outcome is full-thickness loss of cartilage down to bone

Degenerative Joint Disease

- In early disease, pain occurs only after joint use and is relieved by rest
- As the disease progresses, pain occurs with minimal motion or even at rest
- Nocturnal pain is commonly associated with severe disease

Functional Limitations and Degenerative Joint Disease

- Limited use of the involved joint
- Walking and transfer activities may be impaired
- Generally, ADLs will not be significantly impaired

Treatment and Prognosis of Degenerative Joint Disease

- Meds
 - Early PT/exercises
 - Heat/cold therapy
 - Joint protection
 - Surgery
-
- Osteoarthritis is a slowly progressive disease
 - The eventual outcome is complete destruction of the joint, and ultimately surgical intervention is required

Vocational Implications and Degenerative Joint Disease

- Can continue in present job unless it requires dexterous or heavy use of the involved joint
- Heavy lifting should be avoided
- Light to medium work should be possible
- Climbing, balancing skills, stooping, and kneeling may be impaired
- Returning to work after surgery requires intensive postop rehab and continued exercise to maintain muscle strength
- Most individuals are able to sustain gainful employment and a normal level of activity

Additional Resources and Information from the Web

- American College of Rheumatology (www.rheumatology.org)
- Arthritis Foundation (www.arthritis.org)
- Arthritis National Research Foundation (www.curearthritis.org)
- Sjögren's Syndrome Foundation (www.sjogrens.com)
- Spondylitis Association of America (www.spondylitis.org)
- Arthritis.com: Latest Arthritis Information & Community (www.arthritis.com)
