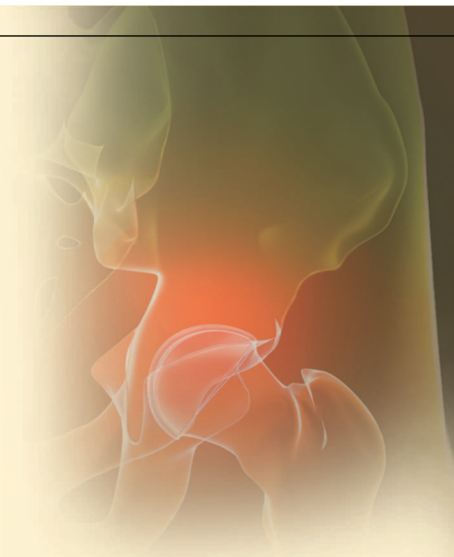


Rheuma Facts

A quarterly Magazine

First Issue, Jan. 2013



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Current News

Osteoporosis, Vertebral Fractures may Flag Heart Risk in RA

Low bone mineral density and the presence of vertebral fractures in patients with rheumatoid arthritis not only signal the likely presence of osteoporosis but also appear to signal increased cardiovascular disease risk, according to findings from cross-sectional study. The findings suggest that dual-energy x-ray absorptiometry (DEXA) scans commonly performed in rheumatoid arthritis (RA) patients to assess for osteoporosis could also serve as an assessment of cardiovascular disease risk, Dr. Ausaf Mohammad reported at the annual meeting of the American College of Rheumatology 2012

Myth Buster: Gout Can Occur in Patients With Rheumatoid Arthritis

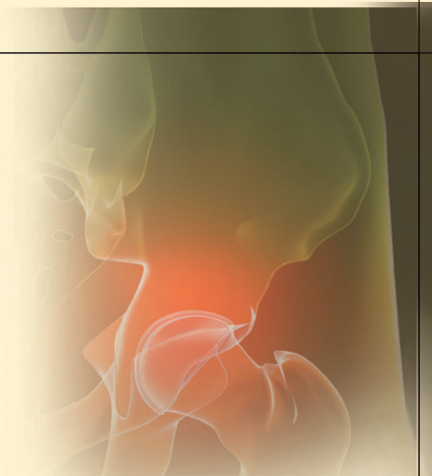
WASHINGTON- Gout does occur in patients with rheumatoid arthritis, though at a lower rate than in the general population, Dr. Adlene Jabakumar said at the annual meeting of the American College of Rheumatology 2012

Black Box Warning: Calcitonin for treatment of Osteoporosis

The European Medicine Agency recommended withdrawing calcitonin indicated for treating osteoporosis because of an increased risk for cancer. EMA recommended this drug be used on short term basis

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New Guidelines for the Treatment of Hyperuricemia, Gout (ACR 2012)

Summarized by:

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Gout results from an excess body burden of uric acid, with hyperuricemia variably defined as a serum urate level exceeding either 6.8 or 7.0 mg/dL. Tissue deposition of monosodium urate monohydrate crystals in supersaturated extracellular fluids of the joints and in certain other sites results in acute gouty arthritis, chronic arthritis and renal disease. The goal of the 2012 American College of Rheumatology (ACR) guidelines was to develop systematic nonpharmacologic and pharmacologic recommendations for effective treatments in gout with an acceptable risk/benefit ratio. Four specific areas of gout management covered by the guidelines were urate-lowering therapy (ULT), chronic tophaceous gouty arthritis (CTGA), analgesic and anti-inflammatory management of acute gouty arthritis and pharmacologic anti-inflammatory prophylaxis of attacks of gouty arthritis

Old Disease, New Management

Part one of the guidelines focuses on hyperuricemia and CTGA. The top recommendation is for more intensive education of patients on diet, lifestyle choices, treatment objectives and management of concomitant diseases; this includes recommendations on specific dietary items to encourage, limit, and avoid

Co-morbidity Checklist for Patients With Gout

- Obesity, dietary factors
- Excessive alcohol intake
- History of urolithiasis
- Chronic kidney disease (CKD)
- Potential genetic or acquired causes of uric acid overproduction (inborn error of purine metabolism, psoriasis, myeloproliferative or lymphoproliferative disease)
- Lead intoxication

Diet is important, but what is really important is getting the serum urate to a target appropriate for that patient. At a bare minimum, it should be less than 6 mg/dl. In clinical practice, the serum uric acid level is no longer part of the routine metabolic panel, but it is inexpensive and should be monitored regularly in gout patients

Start Low, Go Slow With Allopurinol

The ACR guidelines recommend treating patients with a xanthine oxidase inhibitor (XOI), such as allopurinol, as the first-line pharmacologic ULT approach. The recommended goal is to reduce serum urate to less than 6 mg/dl and the initial allopurinol dosage should be no greater than 100 mg/day, the guidelines say. This should be followed by gradual increase of the maintenance dose, which can safely exceed 300 mg even in patients with CKD

For CTGA, the guidelines recommend combination therapy with 1 XOI (allopurinol or febuxostat) and 1 uricosuric agent when target urate levels are not achieved. They advise using probenecid as an alternative first-line urate-lowering drug in the setting of contraindication or intolerance to at least 1 XOI (except in patients with creatinine clearance below 50 ml/minute). They also recommend pegloticase in patients with severe gout disease who do not respond to standard, appropriately dosed ULT

Acute Gout Requires Prompt Treatment

Part two of the guidelines covers therapy and prophylactic anti-inflammatory treatment for acute gouty arthritis. These guidelines recommend initiating pharmacologic therapy within 24 hours of onset of acute gouty arthritis attack while continuing urate-lower therapy without interruption. Nonsteroidal anti-inflammatory drugs (NSAIDs), corticosteroids, or oral colchicine are the recommended first-line treatment for acute gout and combinations of these medications can be used for severe or unresponsive cases

To prevent the acute gout flares that may accompany the early stages of ULT, the guidelines recommend oral colchicine or low-dose NSAIDs as long as there is no medical contraindication or lack of tolerance

STUDY HIGHLIGHTS

- New guidelines from the ACR offer updated recommendations on the management of hyperuricemia
- Patient education regarding diet, lifestyle, treatment objectives and management of co-morbid conditions is a core therapeutic measure for both gout and hyperuricemia
- The first-line pharmacological ULT in gout is XOI therapy with either allopurinol or febuxostat
- Target serum urate level should be lower than 6 mg/dl, and often lower than 5 mg/dl, to maintain improvements in gout signs and symptoms
- The starting dosage of allopurinol should not exceed 100 mg/day (or less in moderate to severe CKD). This should be gradually titrated upward
- Even in patients with CKD, the maintenance dose of allopurinol can exceed 300 mg daily
- Before starting allopurinol, rapid polymerase chain reaction-based HLA-B*5801 screening should be considered for subpopulations with elevated HLA-B*5801 allele frequency and with high risk for severe allopurinol hypersensitivity in HLA-B*5801-positive patients
- These high-risk groups include Koreans with stage 3 or worse CKD and all persons of Han Chinese and Thai descent
- When appropriate dosing of an XOI does not achieve the serum urate target, combination oral ULT with 1 XOI agent and 1 uricosuric agent is recommended
- For patients with severe gout disease burden and lack of response to or intolerance of appropriately dosed oral ULT, pegloticase may be used
- Updated recommendations for the management of acute gouty arthritis were also presented
- Pharmacotherapy should be started within 24 hours of onset of an acute gouty arthritis attack
- During an acute attack of gout, established pharmacologic ULT should be continued without interruption
- Appropriate first-line therapy for acute gout includes NSAIDs, corticosteroids, or oral colchicine
- For severe or refractory attacks, certain combinations of these drugs may be used
- All patients with gout who are starting to receive ULT should receive pharmacologic anti-inflammatory prophylaxis
- This should be continued if there is any clinical evidence of continuing gout disease activity and/or the serum urate target has not yet been reached
- Except for patients with lack of tolerance or medical contraindications, oral colchicine is an appropriate first-line choice for prophylaxis of gout attack and may be used with appropriate dose adjustment in patients with CKD or drug interactions
- Except for patients with a lack of tolerance or medical contraindications, low-dose NSAIDs are appropriate for first-line prophylaxis of gout attack

CLINICAL IMPLICATIONS

- According to the 2012 ACR guidelines, core therapy for management of gout and hyperuricemia include patient education about diet, lifestyle, treatment objectives and management of co-morbid conditions. First-line pharmacological ULT in gout is XOI therapy with either allopurinol or febuxostat to achieve a target serum urate level of less than 6 mg/dl, and often less than 5 mg/dl
- For an acute gouty arthritis attack, pharmacotherapy with NSAIDs, corticosteroids, or oral colchicine should be started within 24 hours of onset, and ULT should be continued without interruption. All patients with gout starting ULT should receive pharmacologic anti-inflammatory prophylaxis with oral colchicine or low-dose NSAIDs

It Hurts All Over..... Fibromyalgia!

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Fibromyalgia is a common and complex chronic pain disorder that affects people physically, mentally and socially. It is a syndrome, rather than a disease characterized by chronic widespread pain. Unlike arthritis, the joints are not directly affected in fibromyalgia. The pain of FM is often described as aching or burning and is unpredictable in nature. Its severity varies from day to day, and different parts of the body tend to be affected at different times. FM pain can be extremely severe and disabling or it may cause only moderate discomfort. Despite its many symptoms and their potential severity, FM does not cause physical deformity nor interfere with normal life expectancy. However, it can be a very exigent disorder, and until the patient is able to manage it through appropriate treatment and medication, FM can adversely affect quality of life and can interfere with basic daily activities

Causes

New research findings continue to bring us closer to understand the basic mechanisms of fibromyalgia. Most researchers agree that FM is a disorder of central processing with neuroendocrine/neurotransmitter deregulation

The FM patient experiences pain amplification due to abnormal sensory processing in the central nervous system. An increasing number of scientific studies now show multiple physiological abnormalities in the FM patient, including:

- Increased levels of substance P in the spinal cord
- Low levels of blood flow to the thalamus region of the brain
- Hypothalamic pituitary axis hypo function
- Low levels of serotonin and tryptophan and abnormalities in cytokine function

Recent studies have shown that genetic factors may predispose individuals to a genetic susceptibility to FM. For some, the onset of FM is slow; however, in a large percentage of patients the onset is triggered by an illness or injury that causes trauma to the body. These events may act to incite an undetected physiological problem already present

Symptoms of fibromyalgia

Chronic widespread body pain is the primary symptom of fibromyalgia. In addition to pain, the following symptoms may accompany FM:

- Fatigue – ranging from a ‘tired’ feeling of exhaustion.
- Unsatisfactory sleep – despite getting adequate sleep. Also difficulty falling asleep or staying asleep
- Stiffness – upon awakening or after remaining in one position for a prolonged period. May also accompany weather changes
- Headaches – often the result of extremely tight or over worked neck and shoulder muscles that refer upward pain
- Light-headedness/ balance problems – usually involve a difficulty with balance (particularly while standing still) or with visual tracking/ orientation when engaged in activities requiring a lot of eye movement
- Temporomandibular (jaw) joint dysfunction, a condition quite common in FM
- Abdominal Discomfort – abdominal pain and bloating, constipation, and/ or diarrhea (also known as irritable bowel syndrome)
- Pelvic pain/ Discomfort – may include an increase in urinary frequency or urgency to urinate, often without infection (irritable bladder), or at times, interstitial cystitis, a chronic inflammatory condition of the bladder wall
- Gynecological symptoms may include pre-menstrual syndrome (PMS), painful menstruation
- Numbness or tingling – a prickling or burning sensation, particularly in the arms or legs (paresthesia)
- Chest Wall pain – intense muscular pain at the spot where the ribs meet the chest bone, accompanied by shallow breathing (also known as costochondralgia or costochondritis)
- Cognitive Disorders – difficulty concentrating, “spaciness”, memory lapses, word mix-ups when speaking/writing, and clumsiness (“fibro-fog”)
- Sensory Sensitivity – hypersensitivity to light, noise, touch, and odors, as well, as cold or heat. Allergic-like symptoms (i.e. rhinitis,

itching, rash, etc) may also occur

- Emotional responses- Irritability, anxiety, depression, and/or feelings of isolation are not common and often stem from the chronic and unpredictable nature of fibromyalgia

Who Develops FM?

Fibromyalgia affects a significant segment of the population. According to conservative estimates, between 4 and 6 million suffer from the condition. An estimated 80% of sufferers are women, most of them working-age, so FM has obvious consequences for employment and increased family stress. Fibromyalgia also occurs in all other age groups, in men and it exists in all races worldwide

DIAGNOSIS:

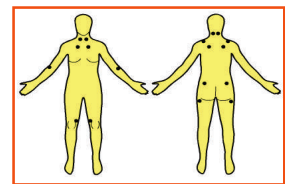
Fibromyalgia is not a diagnosis of exclusion and must be diagnosed by its own characteristic features. Currently there are no laboratory tests available for diagnosing fibromyalgia. We must rely on patient histories, self-reported symptoms, a physical examination and an accurate manual tender point examination

This evaluation usually consists of:

1. Ruling out medical conditions whose symptoms mimic FM (i.e. thyroid disease, M.S., lupus, etc.)
2. An extensive medical history which includes a “tender point” exam the application of pressure to specific diagnostic, anatomical points identified by the ACR in 1990 as especially sensitive in fibromyalgia patients

To receive a diagnosis of FM, the patient must meet the following ACR 1990 diagnostic criteria:

- Widespread pain in all four quadrants of the body for a minimum duration of three months
- Tenderness or pain in at least 11 of the 18 specified tender points when pressure is applied



Treatment:

One of the most important factors in improving the symptoms of FM is for the patient to recognize the need for lifestyle adaptation. Most people are resistant to change because it implies adjustment, discomfort and effort. However, in the case of FM, change can bring about recognizable improvement in function and quality of life. Becoming educated about FM gives the patient more potential for improvement. An empathetic physician who is knowledgeable about the diagnosis and treatment of FM and who will listen to and work with the patient is an important component of the treatment. It may be a family practitioner, or a Rheumatologist

Pain management

A number of pharmacological treatments for fibromyalgia are available for prescription. The drugs approved by the FDA to treat fibromyalgia are:

1. Pregabalin
2. Duloxetine
3. Milnacipran

Pregabalin is widely used everywhere for the treatment of FM. Additionally, patients with FM are treated with non-narcotic pain relievers, or low doses of antidepressants. An important aspect of pain management is a regular program of gentle exercise and stretching, which helps maintain muscle tone and reduces pain and stiffness

OTHER TREATMENTS

Complementary therapies can be very beneficial. These include: physical therapy, therapeutic massage, light aerobics, application of heat or cold, acupuncture, yoga, relaxation exercises, breathing techniques, and cognitive therapy

A practitioner's guide to pain in older patients

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Persistent or chronic pain is common in older population. Pain may be multifactorial and difficult to identify but since it is a widespread geriatric problem, all patients in this age group should be asked about the pain

- Elderly patients may take the pain for granted; unless asked, many may not mention it at all
- While some elderly people deny any pain, they may admit to having aches or discomfort

Some misconceptions about pain in Older Patients

- It's a sign of weakness to admit to pain (or a sign of strength to bear with it)
- Pain is just part of aging—and there's nothing to be done about it
- Pain is punishment for past actions
- Chronic pain means death is approaching
- Chronic pain always means serious underlying disease
- Acknowledging pain will lead to intrusive and possibly painful tests
- Pain means a loss of independence

It is interesting to note that older patients have high tolerance for pain. They cannot be accurately assessed for pain, and are likely to become addicted to pain medications

The Consequences of Unmanaged Persistent Pain

Unmanaged pain in older patients can have numerous consequences, including:

- Depression
- Anxiety
- Decreased socialization
- Sleep disturbance or insomnia
- Impaired ambulation

Conditions associated with pain in older patients

- Degenerative joint disease
- Rheumatoid arthritis
- Fibromyalgia
- Spinal column disorders
- Crystal-induced arthropathies
- Osteoporosis with compression fractures
- Neuropathies (e.g., PHN)
- GI conditions such as ileus and peptic ulcers
- Degenerative joint disease
- Urogenital conditions such as kidney stones
- Headaches
- Oral or dental pathology
- Peripheral arterial disease
- Post stroke syndrome
- Immobility contractures
- Pressure ulcers
- Amputations

Conducting a Comprehensive Assessment

To conduct a more comprehensive pain-assessment interview, it's important to obtain a thorough pain history. This can provide useful insights into the onset, pattern, quality, duration, location, intensity, and timing of the pain. It can also help identify potential triggers that aggravate and/or relieve the pain

A thorough pain assessment should include:

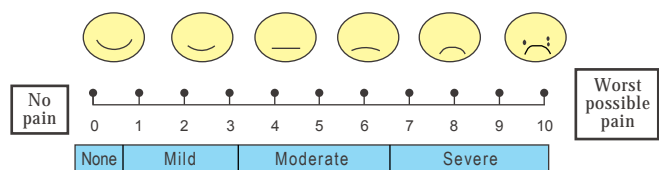
- History
- Physical examination
- Laboratory and diagnostic tests, if appropriate
- Evaluation of psychological function

The following sample questions can help capture important information that can lead to a more-comprehensive pain-assessment interview

1. When and how did the pain start?
2. Does the pain have a pattern (e.g., comes and goes, always present, etc.)?
3. How intense is the pain?
4. Where is the pain?
5. What makes the pain better or worse?
6. How does the pain interfere with daily activities (eating, sleeping, bowel/bladder function, etc.)?
7. How does the pain impact your mood?
Do you also feel depressed or anxious?

In order to obtain a comprehensive assessment, it's important for healthcare providers to be aware of possible barriers that can interfere with the pain-assessment process, including cognitive issues, social and cultural barriers, and patients who can't or don't verbalize their pain. For instance, many older patients assume that pain is a normal part of aging and may be reluctant to talk about it

Several self-reporting scales are useful during pain assessments:



Numeric rating scale (NRS):

Most commonly used scale measuring pain intensity from 0 to 10 (0 is No Pain and 10 is Worst Pain Imaginable)

Faces Pain Scale-Revised (FPS-R):

Series of faces from happy to very upset shows degrees of distress. Also incorporates numerical values for pain

Pain Management in older Patients

The diagnosis and treatment of pain in older patients is complicated because of multiple medical problems and possible sources of pain. As a result, pain may not be adequately treated in senior patients nor always documented in their medical charts

Inadequate pain relief puts the elderly at increased risk of depression, sleep disturbance, anxiety, fatigue, impaired ambulation, dementia, aphasia, and decreased socialization ongoing pain may lead to polypharmacy and increased use and costs of healthcare resources. Treatment plans for older patients should begin by discussing goals, expectations, risks, and benefits—and should be individualized to account for patient factors such as disability, limited finances, complex drug regimens, and even means of transportation to/from points of healthcare delivery

The elderly are more likely than younger patients to experience adverse effects from pain medications—thus, careful dosing titration, frequent assessment and monitoring, and adjustments are usually required. The following recommended steps are included to manage pain in geriatric patients

- Reassess regularly—As often as daily for acute pain until substantially controlled with a stable analgesic regimen; no less than quarterly for chronic pain, though many patients may need more-frequent reassessment
- Reevaluate patient's pain regularly—Use an appropriate pain-assessment tool to reevaluate the patient any time the current pain control appears inadequate to the provider or caregiver

Osteoarthritis

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- Monitor for adverse events.
Adjust treatment as necessary—If a revised care plan is indicated, recommend appropriate treatment, changes in medications and/or complementary therapies and discuss the proposed with the patient and family members
- Repeat the above as appropriate until the pain is under control—or the practitioner believes that no further improvement is likely. The primary care physician should consider referral to a Physician, neurologist, physiatrist, pain clinic, or palliative-care specialist for patients not responsive to the above pain-management steps

Factors to consider in choosing appropriate pain therapy in elderly patients

- What are the patient's underlying diagnosis and coexisting conditions?
- What evidence supports the safety and efficacy of the treatment?
- What are the preferences of the patient, family, or substitute decision maker?
- What is the patient's past experience with the specific therapy?
- Which skilled and experienced providers are available?
- What adverse interactions are possible between the proposed plan and the patient's current medical therapy?

Conclusion

Patient comfort and well-being are always paramount—and the basis for effective pain management. Seek adequate pain management in each case. Tailor pain management to each patient's needs, situation, health conditions, and risk factors. Healthcare team providers share responsibility to advocate for the patient's comfort through appropriate and cost-effective means. When pharmacologic treatment is used, it should provide satisfactory pain relief using the most effective dose with fewest adverse effects choosing appropriate medication, balance treatment benefits and costs

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Osteoarthritis

Osteoarthritis (OA) is the most common joint disorder, which occurs due to aging and wear and tear on a joint

Causes, incidence, and risk factors

Osteoarthritis is a usual consequence of aging

- Cartilage is a firm, rubbery tissue that cushions bones at the joints and allows bones to glide over one another
- If the cartilage breaks down and wears away, the bones rub together. This causes pain, swelling, and stiffness
- Bony spurs or extra bone may form around the joint. The ligaments and muscles around the joint become weaker and stiffer

Often, the cause of OA is unknown. But, it is mainly related to aging

- The symptoms of OA usually appear in the middle age. Almost everyone has one symptom or the other by the time they reach the age of 70. However, these symptoms may be minor
- Before the age of 55, OA occurs equally in men and women. After the age of 55, though, it is more common in women than in men

Other factors can also lead to OA which are as follows:

- OA tends to run in families
- Being overweight increases the risk of OA in the hip, knee, ankle and foot joints because extra weight causes more wear and tear
- Fractures or other joint injuries can lead to OA later in life. This includes injuries to the cartilage and ligaments in joints
- Jobs that involve kneeling or squatting for more than an hour a day leads to the highest risk. Jobs that require lifting, climbing stairs, or walking are also jeopardising
- Playing sports that involve direct impact on the joint (such as football), twisting (such as basketball or soccer), or throwing also increase the risk of arthritis

Medical conditions that can lead to OA include:

- Bleeding disorders that cause bleeding in the joint, such as hemophilia
- Disorders that block the blood supply near a joint and lead to avascular necrosis
- Other types of arthritis, such as chronic gout, pseudo gout, or rheumatoid arthritis

Symptoms

Pain and stiffness in the joints is one of the most common symptoms. The pain often worsens after exercise and upon placement of weight or exertion of pressure on the joint

In osteoarthritis, there is a high probability of joints becoming stiffer and harder to move, over time. There is also a possibility of hearing a rubbing, grating, or crackling sound upon movement of joints

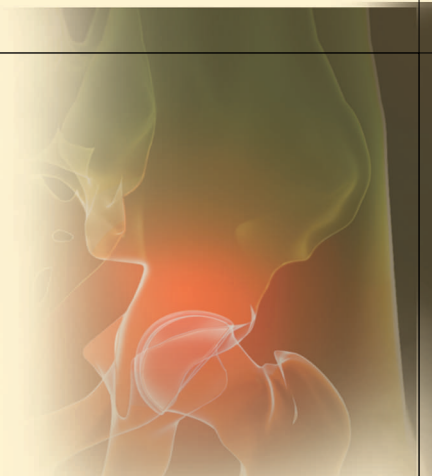
The phrase "morning stiffness" refers to the pain and stiffness one may feel when he first wake up in the morning. Stiffness usually lasts for about 30 minutes or less. It is improved by mild activity that "warms up" the joint

During the day, the pain may get worse when person is active and feel better when he is resting

Some people might not have symptoms, even though x-rays show the changes of OA

Osteoarthritis

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Signs and tests

A physical exam can show the following:

- Joint movement may cause a cracking (grating) sound, called crepitation
- Joint swelling (bones around the joints may feel larger than normal)
- Limited range of motion
- Tenderness when the joint is pressed
- Normal movement is often painful

No blood tests are helpful in diagnosing OA

An x-ray of affected joints will show a loss of the joint space. In advanced cases, there will be a wearing down of the ends of the bone and bone spurs

Treatment

OA cannot be cured. Instead, it worsens over time. However, OA symptoms can be controlled

Patient may require undergo surgery but other treatments can improve pain and make life much better. Although these treatments cannot make arthritis go away, they can often delay surgery

MEDICATIONS

Over-the-counter pain relievers, which we can buy without a prescription, can help with OA symptoms. Most doctors generally recommend Panadol first, because it has fewer side effects than other drugs. If the pain does not subside, doctor may recommend nonsteroidal anti-inflammatory drugs (NSAIDs). Types of NSAIDs include Diclofenac, etc.

Other medications or supplements that may be used include:

- Corticosteroids injected right into the joint to reduce swelling and pain
- Over-the-counter remedies such as glucosamine and chondroitin sulfate
- Capsaicin skin cream to relieve pain
- Artificial joint fluid can be injected into the knee to relieve pain

LIFESTYLE CHANGES

Staying active and exercising helps maintain joints and overall movement. Water exercises, such as swimming are also very helpful

Other lifestyle recommendations include:

- Applying heat and cold
- Eating a healthy, balanced diet
- Taking rest
- Losing weight if you are overweight
- Protecting the joints with knee support etc.

As the OA aggravates, keeping up with everyday activities may become more difficult or painful

- Sometimes making changes around the home will take some stress of joints, and relieve some of the pain
- If work is causing stress in certain joints, then one need to adjust work area or change work tasks

PHYSICAL THERAPY

Physical therapy can help improve muscle strength and the motion of stiff joints, as well as sense of balance. Therapists have many techniques for treating OA. If therapy does not make feel better after 6 - 8 weeks, then it will likely not work at all

Massage therapy may also help in providing short-term pain relief

BRACES

Splints and braces can sometimes support weakened joints. Some prevent the joint from moving; others allow some movement. One should use a brace only when doctor recommends. Using a brace the wrong way can cause joint damage, stiffness, and pain

ALTERNATIVE TREATMENTS

Acupuncture is a treatment based on Chinese medicine, however, how it works is not entirely clear. Some studies have found that acupuncture may provide short-term pain relief for people with OA

SURGERY

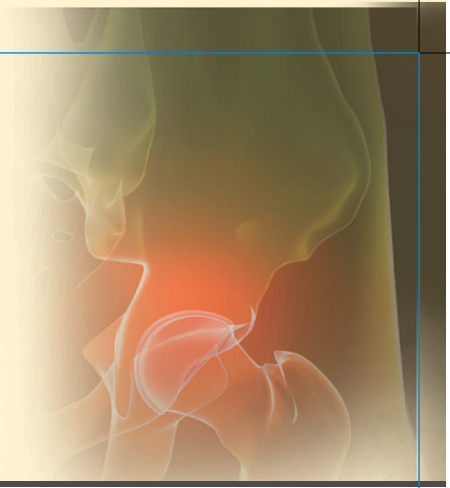
Severe cases of OA might need surgery to replace or repair damaged joints. Surgical options include:

- Arthroscopic surgery to trim torn and damaged cartilage
- Changing the alignment of a bone to relieve stress on the bone or joint (osteotomy)
- Surgical fusion of bones, usually in the spine (arthrodesis)
- Total or partial replacement of the damaged joint with an artificial joint (knee replacement, hip replacement, shoulder replacement, ankle replacement and elbow replacement)

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Quiz



1. The following characteristically produce a symmetrical polyarthritis:

- a) Osteoarthritis
- b) Ankylosing spondylosis
- c) Systemic lupus erythematosus
- d) Reiter's syndrome

2. Involvement of the following articular regions are characteristic of rheumatoid arthritis:

- a) Distal interphalangeal joints
- b) Proximal Interphalangeal joints
- c) 1st Metatarsophalangeal joints
- d) Lumbar spine

3. The following may produce hyperuricaemia:

- a) Pregnancy
- b) Renal failure
- c) Wilson's disease
- d) Hemolytic anemia

4. The management of acute low back pain with no radiation on legs and weakness includes:

- a) Rest and NSAID
- b) Rest, physiotherapy and Analgesic
- c) Mobility as tolerated and Analgesic
- d) Physiotherapy and Analgesic

5. The following are the characteristics of osteoarthritis:

- a) Heberden's nodes
- b) Heliotrope rash around the eyes
- c) Butterfly rash
- d) Raised ESR