



Rheumatoid Arthritis

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Englisch

Rheumatoid Arthritis is the most common of the diseases that are connected with an inflammation process. It is a chronic illness that can manifest itself on almost all joints of the body. Studies have shown that about 0.5 to 1% of the world population suffer from it. In Germany we believe that about 800.000 persons are afflicted, women 3 times more than men. One can get rheumatoid arthritis at any age, but it usually occurs between the ages of 30 to 50.

What is known about the Causes of Rheumatoid Arthritis?

Even though there has been progress in research during the last few years, we still don't know the causes of the disease. The immune system seems to be malfunctioning, that means for instance that cartilage cells are attacked by one's own body cells. Therefore the disease is called an auto-immune-disease. The outbreak of the illness could also be caused by viral or bacterial agents, but there is no definite scientific evidence for that. Most likely there is also a genetic disposition present that might influence the onset and severity of the illness. Research during the last few years has identified certain hormones, the so-called cytokines that enhance the inflammation process. New possibilities for treatment resulted from this, which improves the perspective of influencing the disease even though the actual cause is not yet known.

How does the Illness Present itself?

Rheumatoid Arthritis often starts in the small joints of the fingers and toes. Suddenly the joints start to hurt, swell and feel warm. Stiffness and restriction of movement occur especially after waking up in the morning, so that this condition is regarded as being typical and is called "morning stiffness". Depending on the activity of the illness, this stiffness can last for several hours. This is a typical beginning of rheumatoid arthritis. But sometimes it can start in a different way, so that only some large joints are inflamed. In older persons this is often the shoulder joint. During the course of several weeks or months more and more joints are affected. But also the tendon sheath can become inflamed and painful, for instance the ligaments in the hand (which control the bending and stretching of the fingers).

Even the vertebrae (often in the neck), and the bursae (often of the elbow) can be afflicted. General symptoms like tiredness, loss of energy, fever, nightly perspiration and sometimes loss of weight show that the whole body is part of the inflammation process. In about 20% of the patients there appear so-called rheumatoid nodules under the skin, usually on the fingers or near the elbow.

The course of rheumatoid arthritis is very complex and unpredictable, periods of high activity (pain, swelling, inflammation) change with periods of relative calmness. And there can even be a complete remission (without treatment) in less than 10% of the patients. The particular characteristic of this illness is the attack of inflammation cells on the cartilage and bone of the joints. If the inflammation process is not stopped the destruction of the joints follows. In very severe cases also other organs can be involved, like the eyes, the heart and the pericardium (the membranous sac enclosing the heart), the lungs and the pleura, the nervous system and the blood vessels.

Diagnosis

It is most important for all rheumatic illnesses that the diagnosis is made early on, in order to begin an effective treatment and to avoid damage. The diagnosis of rheumatoid arthritis is done by assessing the symptoms as well as by a physical examination through a specialist. The physician has certain international criteria to go by (for instance the criteria stipulated by the American College of Rheumatologists (ACR).

In addition the blood is tested to see if there are signs of an inflammation process and if there is a rheumatoid factor present. (The latter does not prove the illness, but gives it a certain characterisation. The rheumatoid factor is also present in other rheumatic illnesses without any diagnostic significance). There should also be x-rays made in the beginning and during the course of the illness in order to observe the extent of bone damage. More information can be obtained through special radiological imaging techniques, which can show for instance the presence of increased fluid in the joint or the swelling of the synovial membrane. For special questions, when for instance the vertebrae of the neck are involved, there are certain more complicated imaging techniques used.

Treatment

If the causes of rheumatoid arthritis were known, one would be able to adequately treat it or even heal it. Unfortunately this is not the case. Therefore we have a number of therapeutic measures which are supposed to reduce pain and activity of the illness. The rheumatologist determines the necessary treatment and co-operates with the general practitioner of the patient. The specialised physician (rheumatologist) is very important in treating the patient since there are numerous drugs and groups of drugs that are used in the treatment of rheumatoid arthritis and these could

have a number of side effects. The most important drugs are the disease modifying drugs (in German called "basic drugs") which are supposed to delay or even stop the progression of the disease. The combined use of several of these drugs and the development of brand-new agents has helped more and more to halt the disease process and improve considerably the quality of life for the patient. Even though the course of the illness cannot be completely altered by different eating habits, one should nevertheless observe certain rules of nutrition which can reduce symptoms or even prevent other illnesses like osteoporosis (i.e. sufficient intake of calcium and vitamin-D).

Overview of the most important therapeutic measures

Physical exercise: in order to maintain or improve function and to strengthen the muscles

Physical therapy: in order to relieve pain, i.e. cold-packs or electrotherapy

Occupational therapy: in order to learn about joint protection techniques and devices

Drug therapy:

Nonsteroidal anti-inflammatory drugs help to relieve pain caused by inflammation

Corticosteroids (cortisone): have a fast effect on the inflammation process (but are problematic taken on a long-term basis because of side effects)

Disease-modifying drugs ("basic drugs"): fight against the inflammation process and

prevent structural damage of the joints

Local therapeutic measures: Injections of corticosteroids into the joints, chemical or radioisotope synovectomy (techniques to reduce the swollen inflamed synovial membrane in the joint)

Orthopedic therapy: supportive shoe inserts, crutches, casts, surgical measures (i.e. artificial joints)

Psychological therapy: to assist with the coping process and teach pain reduction techniques

Other supportive measures: job security counselling, professional retraining, rehabilitation

Information and Education are very important in the management of Rheumatoid Arthritis

Management of the Disease

Rheumatoid arthritis is a chronic illness which affects not only the joints and organs of the patient but also his soul. Daily confrontation with pain and limitation of movement, the loss of capabilities which used to be normal take their toll. A lot of adjustments are necessary – within the family as well as in the professional life. Often the patient needs the assistance of other persons in order to manage every-day life. Patient-education programmes, information through books, through

pamphlets, through the internet can help with the new situation. The "Deutsche Rheuma-Liga" (German Rheumatic League) can provide information, conducts training courses (physical rehabilitation as well as patient education) and tries to represent the concerns of rheumatic patients in public and political life.

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