

6. ARTHRITIS, RHEUMATISM, MUSCULO-SKELETAL AND RHEUMATOLOGICAL DISORDERS

6.2 Introduction

6.2.1 Arthritis and the rheumatic conditions constitute the major cause of chronic disability in the United Kingdom. They affect 10 million people including 1.2 million under 45 and 30,000 children.

6.2.2 Arthritis means inflammation in one or more joints. Movement in the joint is restricted with pain and swelling. The most common types are osteoarthritis (also known as osteoarthrosis) and rheumatoid arthritis. Ankylosing spondylitis and juvenile chronic arthritis (Stills disease) are other types of arthritis. Arthritis may also be found in other disorders (e.g. psoriasis, colitis, some infections and gout).

6.2.3 The musculoskeletal system refers to the bones of the body, the joints which link them, and the related structures such as tendons, ligaments and muscles. Musculo-skeletal disorders are therefore all those medical conditions which involve these parts of the body.

6.2.4 Rheumatism is a term often used to describe the great number of disorders which affect the musculo-skeletal system. Furthermore a number of other terms are used to describe joint/muscle disorders e.g. "frozen shoulder", "tennis elbow", fibrositis (fibromyalgia) and polymyalgia rheumatica. Sometimes when only the ligaments, tendons and muscles are the sources of pain and limited function the term soft-tissue rheumatism is used.

6.2.5 Joint hypermobility (JHM) and Joint Hypermobility Syndrome (JHS) Hypermobile joints are common, occurring in 10-20% of Western populations and even more common in people of Indian, Chinese and Middle Eastern origin. If they are asymptomatic, these are simply people with hypermobility. It is important to distinguish them from patients with Hypermobility Syndrome, where there are symptoms associated with the hypermobility and they meet the Brighton Criteria for diagnosis of this condition. Musculoskeletal problems include joint pain, recurrent sprains, dislocations, fractures, tendonitis, bursitis, premature osteoarthritis, osteoporosis and chronic pain syndrome. Joint Hypermobility Syndrome is a hereditary multi-system disorder and symptoms also may include fatigue, autonomic disorders, proprioceptive problems, uterine and rectal prolapse, herniae and gastrointestinal dysmotility.

6.2.6 The diagnosis is of secondary importance - it is the disability and its consequent needs which are relevant. In all of these conditions there is a great degree of variability in relation to the need for help or effects on walking. To some extent this is dependent on the specific condition, age, severity, treatment and the response of the individual to treatment.

6.2.7 It is highly unlikely that the joints of people past middle age will be as supple, strong and resilient as those of the younger person. X rays of the joints of people past middle age (and sometimes in even younger people) may show abnormalities of the lining cartilage and the bones that make up the joints (e.g. thinning of the cartilage, "wear and tear", bony outgrowths, etc), but these radiological (i.e. X ray) findings may be present in very many people who do not have any problems in those joints. An X-ray report of joints which describes "arthritic changes" does not necessarily mean that the person with such changes has any significant pain or problem with that joint.

6.3 Osteoarthritis (Osteo-Arthrosis, Degenerative Joint Disease)

6.3.1 This disease of joints is not usually inflammatory but is characterized by wear and tear of the joints and is generally age related. It is the commonest type of arthritis. Joints which are particularly prone to develop osteoarthritis are the hip, knee, hands and spine. Past or continuing trauma (ie injury) to the joints can accelerate the onset of osteoarthritis

6.3.2 In the great majority of persons with osteoarthritis the disease is mild (with minimal or no needs) and principally affects one particular joint, which is the main source of pain and discomfort, such as the knee or hip, with minor or no involvement of other joints. The condition may have come to light during x-ray examination, even before the symptoms were noticed. **See para 6.2.7** above. In other people, however, the disease is more severe, causing deformity and extreme pain in affected joints. The problems may be alleviated by surgery, to replace the diseased joint with an artificial one (prosthesis). Those most commonly replaced in this way are the hip and knee joints. This operation is most often successful in significantly relieving joint pain and restoring pain-free movement.

6.3.3 In older people multiple joints are affected and, because of disuse of the joints due to pain, there may be muscle wasting. This can be a factor contributing to falls in the elderly **See Chapter 4**.

6.3.4 Care Needs

(i) In osteoarthritis, the need for help, and its frequency, will depend very much on the number and location of joints involved and the degree of deformity, which may be so severe that surgical intervention is necessary to correct it and to relieve pain.

(ii) Loss or limitation of hand and arm function may lead to a need for help during the day. In the early stages of the condition manual dexterity may be impaired leading to difficulty in handling common utensils. It may also make simple household tasks difficult or dangerous depending upon the degree of loss of function and reduced manual dexterity, and, of course, whether one or both hands/arms are involved.

(iii) When hip and/or knee function is limited or restricted with reduction in the ranges of movement at these joints, there may be problems with bathing,

dressing and undressing the lower half of the body, going up and down stairs and rising from a chair and in walking. In the older person, help may be needed getting out of bed in the morning and back in at night.

(iv) Even when suitable, readily available, equipment or technical aids resolve some difficulties, others may persist and will depend upon individual circumstances.

6.3.5 Mobility Considerations

(i) Loss of hip and/or knee functions, especially when these are associated with problems in the ankles and feet, may lead to substantial difficulties in walking and being able to get around both in the home and outdoors. When the knee is affected the joint may become unstable, increasing the risk of falls, particularly in elderly people.

(ii) In people with long-standing and advanced osteoarthritis of weight-bearing joints (such as the hip, knee, ankles and feet, etc) treatment with pain-relieving drugs (analgesics) or anti-inflammatory medications and physiotherapy, etc, may not significantly improve walking. Where joints have been replaced, however, walking itself and pain associated with walking is usually very much improved.

6.3.6 Duration of Needs

In people with the much more common milder forms of osteoarthritis care needs are minimal and walking is not usually limited to a significant extent. However, even in people with the milder forms of osteoarthritis affecting the weight-bearing joints there may be short periods lasting several weeks when there is increased pain and stiffness which may affect care needs and walking. The duration of established care needs and walking difficulties may be reduced, or even eliminated, by successful replacement with prosthetic joints.

6.4 Inflammatory Joint Diseases

6.4.1 Rheumatoid arthritis is a chronic inflammatory disease involving many joints simultaneously (polyarthritis), and most commonly involving the small joints of the hands and feet, in a symmetrical fashion (i.e.: both wrists, both ankles). The affected joints become painful, swollen, stiff and in some cases deformed. The effects of disability are generally more severe than in osteoarthritis. Its onset is most often in a younger age group than those affected by osteoarthritis - even in childhood - but it may start in the older person. Many complications (in adults and children) may be found in severe arthritis which involve various parts of the body, including the heart, small blood vessels, the lungs, kidneys, eyes and spleen.

6.4.2 In juvenile chronic arthritis (Still's disease), the disease tends to affect the larger joints and growth can be impaired. Prognosis (outcome) is more favourable than in rheumatoid arthritis. For the majority of children the disease will "burn out" by the age of 16 or 18. Response to surgery such as hip or knee replacement is usually successful.

6.4.3 Other diseases which manifest principally as a chronic polyarthritis are psoriatic arthritis, reactive arthritis (Reiter's Syndrome), and ankylosing spondylitis.

6.4.4 Psoriatic arthritis is similar to rheumatoid arthritis, the main difference being that it is usually associated with the skin condition psoriasis, and usually leads to less overall joint disablement. Rarely it can give rise to a particularly severe form of arthritis with severe joint destruction and resulting gross disablement when care needs will be at least as great as those described for severe rheumatoid arthritis.

6.4.5 Reactive arthritis is a polyarthritis found in association with certain infections in other parts of the body. These are often in the gut or the urogenital system.

6.4.6 Ankylosing spondylitis mainly involves the joints of the spine, is commoner in men, and often leads to a stiff and rigid spine. Symptoms may become worse with time, spreading from the low back to mid back and then the neck. Unless other joints than the spine are involved care needs and mobility considerations will be similar to those in people with the painful back **See Chapter 7.**

6.4.7 Care Needs

(i) In rheumatoid arthritis there is characteristically a prolonged period of joint stiffness in the morning on arising from bed, and after sitting in a chair for some time. During these periods of joint stiffness the affected person has to "limber-up" slowly and so may need help with dressing, rising from bed/chair, and washing. Bathing or showering in the morning may assist in the "limbering-up" process, and help would be required for this. The duration of morning stiffness often exceeds an hour in those with active inflammation of several joints. Even in remission, between the flare-ups, damaged joints may be painful and stiff in the mornings causing difficulties in taking medication, bathing and dressing.

(ii) Damage to the joint structure may result in weakness of ligaments, tendons and surrounding muscles, causing the hands and wrists to be weak with markedly impaired grip and loss of dexterity. Involvement of the finger joints may also seriously impair grip and manual dexterity, preventing the person from handling utensils, and making it difficult to cut food. In the early stages there may only be slight impairment of manual dexterity but help may be needed in the preparation of meals. If the shoulders and neck are affected this, too, may lead to difficulties with washing, dressing, cutting up food, and eating. Putting on and taking off outdoor clothing, splints (when used) and collars may also pose problems.

(iii) Except in those with highly active disease, there should be little need for attention at night for such activities as toileting and turning in bed. During flare-ups, however, when splints and collars are used at night, removal of these to attend to toilet needs may be difficult. Help may also be required, in these circumstances, for taking pain relief medication.

(iv) Due to disuse atrophy (i.e. wasting of muscles) because of painful lower limb joints, falls can be a problem, generally in the older person.

(v) In ankylosing spondylitis, because of back stiffness, assistance may be needed with lower garments when dressing and in getting in and out of the bath.

6.4.8 Mobility Considerations

(i) Walking may well be impaired in those with active inflammation of joints in lower limbs. When the feet are affected, this may cause severe pain on walking. If knees and hips are involved, standing and sitting can be difficult and painful, and walking more severely limited.

6.4.9 Duration of Needs

(i) The needs of persons with highly active joint inflammation may lessen dramatically when spontaneous remissions occur or in response to drugs. These drug treatments are associated with an improvement in the extent and severity of arthritis. When this occurs it will be likely to do so within about one year's treatment. Patients are most responsive to treatment in the initial stages of rheumatoid arthritis (i.e. 2 to 5 years following onset).

(ii) There will be older patients with a longstanding history of rheumatoid arthritis in whom the disease may be "burnt-out", leaving many of the smaller joints of the hands deformed with poor hand function or resulting in fixed deformities of lower limb joints with impairment of walking ability. In these people the needs will depend upon the overall disablement in the individual case but are unlikely to change throughout the remainder of the person's life.

(iii) In the majority of people with rheumatoid arthritis, the disease smoulders on, involving further joints, and slowly increasing levels of disability and associated needs.

6.5 Osteoporosis

6.5.1 Osteoporosis is the name given to a reduction or thinning in the total mass of bone present in the body. The precise mechanism causing this disease is unclear. It is found most frequently in women after the menopause, particularly in the older woman; and in people receiving long-term treatment with steroid compounds, e.g., for rheumatoid arthritis. Sometimes the condition is noted in younger women who have had their ovaries removed (oophorectomy). Inadequate physical activity promotes generalised osteoporosis and the condition also occurs in various glandular disorders and in cases of severe malnutrition and chronic renal (kidney) disease.

6.5.2 The condition is of variable severity. In its mild form it may give rise to no symptoms and may be a chance X-ray finding. When the condition is more severe, pain may be a feature. This is usually due to fractures of the "brittle" bones, often occurring after only minor injury. Persistent backache may occur later on in the disease, due to progressive compression or collapse of several

vertebrae. The healing of fractures is not usually impaired and, with healing, the pain usually subsides. There is also a tendency for the condition to improve spontaneously, or with treatment. Suitable physical exercise is also helpful.

6.5.3 Care Needs and Mobility Considerations

(i) In all but its most severe forms osteoporosis of itself may be symptomless and give rise to no mobility problems or care needs. Even when there has been very considerable loss of bone mass it will be the pain and functional limitations associated with fractures or bone collapse (particularly in the back) that may give rise to care needs and mobility problems. In these severe cases (generally in elderly women) there may well be considerable care needs arising from disability associated with fractures. These commonly occur in the region of the wrist, back and hip joint. When fractures occur in the back or in the weight-bearing joints there may well be adverse effects on walking. Progressive collapse of the spinal vertebrae may result in a shortened, curved back causing chronic pain and walking problems.

(ii) A person affected with this level of disease and its complications may also have difficulty with getting in and out of bed, rising from a chair, dressing and undressing, preparing a main meal and attending to toilet needs. Under such circumstances, and particularly in elderly people, there may be care needs both by day and by night.

(iii) When assessing the care needs which may arise, consideration should also be given to any other recorded disability(ies) which may give rise to mobility problems or care needs in their own right and which may interact with any needs arising from osteoporosis.

(iv) Although the intellect is not affected in this disease, any tendency to fall may give rise to supervisory needs in elderly frail people, because of the increased risk of broken bones, and difficulty in rising after a fall..

6.5.4 Duration of Needs

Fractures heal at the normal rate, so that any resultant disability may not last more than a few weeks or months. This is particularly so in the younger person. In elderly people with osteoporosis who have sustained frequent fractures with progressive collapse of the spinal vertebrae, significant improvement in disability and care needs is unlikely during the remainder of the person's life.

6.6 Joint Hypermobility Syndrome

6.6.1 The Joint Hypermobility Syndrome (JHS) is a multi-system inherited connective tissue disorder thought to be caused by faulty fibrous tissue matrix proteins such as collagen. It is indistinguishable from Ehlers-Danlos Syndrome – Hypermobility type (previously known as Ehlers-Danlos type III).

6.6.2 Tissue laxity results in increased flexibility, an asset to some dancers, gymnasts, musicians and athletes. However, fragile tissues are prone to overuse injury, rupture and healing is poor and often delayed.

Muscle and joint complications - joint pain, sprains, tendonitis, bursitis, recurrent dislocations, fractures, early arthritis and osteoporosis, chronic spinal disc problems with back and neck pain, chronic pain syndrome.

Other complications - stretchy poor healing skin, uterine and rectal prolapse and stress incontinence, proprioceptive impairment leading to clumsiness and falls, fatigue. Gastro-intestinal problems (abdominal pain, constipation, gastroparesis, reflux – can require multiple medications and even naso-gastric tube or PEG feeding). Autonomic Disorders occur in 78% of patients and include Vasodepressor Syncope and Postural Orthostatic Tachycardia Syndrome (PoTS) (increased pulse rate on standing or prolonged sitting can result in reduced blood supply to the brain and compensatory high adrenaline levels. Symptoms include fainting, dizziness, fatigue, poor concentration and memory problems, headaches, palpitations, tremor, sense of anxiety, nausea, sweats and visual problems. It produces functional impairment similar to that found in COPD and heart failure).

6.6.3 Joint Hypermobility Syndrome is under-diagnosed. In one survey, over 50% of patients waited over 10 years from onset of symptoms to receive a diagnosis. Many doctors (including some rheumatologists) are sceptical about its serious impact on patient's lives.

It can be difficult to match disability with patient appearance as they often look and move well. Assessors may incorrectly assume that because a joint has good range of movement and is not swollen, it cannot be painful.

6.6.4 People with JHS often respond poorly to analgesics and local anaesthetics. With frequent and persistent painful episodes and poor pain control, they often develop widespread chronic pain with pain amplification and kinesiophobia (avoidance of movement to avoid pain). Deconditioning develops.

Depression is common due to chronic uncontrolled pain, difficulty with tasks of daily living, diagnostic delay and failure to recognise symptom severity.

6.6.5 Care Needs

(i) People with severe forms of the Joint Hypermobility Syndrome may be in frequent or constant pain that is worsened by movements, especially those involving physical effort such as lifting. Joints may dislocate following minimal movement. When the tissues are damaged, physically demanding activities are also painful and give rise to care needs from another person. Periods of rest throughout the day may be required after only a modest amount of physical activity. Falls may occur so that certain activities such as bathing,

using stairs, etc may need to be supervised, particularly in elderly people with this syndrome.

(ii) Main meal preparation, especially cutting up vegetables, opening jars, lifting pans and using taps may prove to be difficult .At times assistance may be required with toileting and personal hygiene.

(iii) Special consideration may be required in the workplace. Chairs may need to be adapted to suit individual's need e.g. high back, lumbar support, elevated seat. It may be necessary to adapt taps and door-handles. Repetitive use of susceptible joints should be avoided. Special transport considerations may be necessary. Advice from an occupational therapist, physiotherapist or occupational health department may be helpful. Employees with autonomic complications may require a cool environment with the ability to take short regular breaks to eat and drink. Prolonged standing and sitting should be avoided. They may have special dietary requirements. Profound fatigue is a common problem and can impair stamina and concentration.

6.6.6 Mobility Considerations

(i) Because the connective tissues are lax and fragile they may be easily injured or dislocate. The combination of unstable, painful joints and balance problems may make walking difficult. People with severe forms of the syndrome require the use of walking aids (cane, crutches) or wheelchair. Patients can become bed-bound.

6.6.7 Duration of Needs

(i) Pain can result from sudden injuries to the soft tissues which take weeks or months to heal. Overenthusiastic physiotherapy from practitioners inexperienced with Joint Hypermobility Syndrome may exacerbate symptoms. Long delays in diagnosis means that many patients (for example 24 % of patient attending their first appointment at UCH Hypermobility Clinic) have established chronic pain syndrome and requiring a multi-disciplinary team approach to management.

6.7 Further Evidence

Because of the wide range of clinical manifestations and spectrum of disability and needs it may often be necessary to obtain further evidence, in the form of a GP or physiotherapist report or a report by an examining medical practitioner. A rheumatologist's report may be particularly helpful.