TREATMENT IN GENERAL PRACTICE

This article is one of a series on the management of some of the rheumatic diseases met with in general practice.

RHEUMATOID AND CLIMACTERIC ARTHRITIS

BY

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Before describing the treatment of these conditions it may be as well to define exactly the meaning of the terms used. Rheumatoid arthritis is a form of multiple arthritis affecting the periarticular tissues, synovial membranes and joint cartilages; showing a tendency to symmetrical distribution, and affecting especially the smaller joints of the extremities. In the acute stage the joint lesions may be associated with slight pyrexia, sweating, enlargement of the spleen, leucocytosis, and an increased rate of blood sedimentation. In the later stages severe deformity may result from contractures, ankylosis, or subluxation of affected joints.

Importance of Early Treatment

Rheumatoid arthritis is always a formidable disease, and if unchecked frequently leads to the most deplorable and tragic results. Treatment, if it is to have any hope of success, must be begun at the earliest possible moment and carried out on broad, comprehensive lines. Valuable time is too often lost by perfunctory treatment with so-called anti-rheumatic drugs, while the patient is allowed, or even encouraged, to carry on the ordinary avocations of life.

The indications all point to the fact that rheumatoid arthritis is due to some focus of streptococcal infection which requires removal or treatment as soon as possible. In many cases there is some obvious focus in diseased teeth or tonsils; in others the disease follows puerperal sepsis. Where the source is not obvious, careful investigation must be made of the gastro-intestinal tract, gall-bladder, urinary tract, prostate, and uterus with a view to appropriate treatment of any infective condition.

Achlorhydria is present in over 20 per cent. of cases, and in such chronic intestinal infection is likely. An infected gall-bladder is probably a more common cause than is usually realized. Removal of bile through the duodenal tube may show that the gall-bladder is a "carrier" of streptococci, though the patient has no definite symptoms of cholecystitis. If it is necessary to remove a number of diseased teeth this should be done gradually to avoid the risk of a violent reaction in the joints.

Treatment in Acute and Subacute Stages

The importance of general treatment to increase the patient's vitality and resistance to infection cannot be urged too strongly, and no time should be lost in carrying it out.

The same principles apply to the treatment of rheumatoid arthritis as to that of any other form of chronic infection, notably tuberculosis, and if they are to be successful must be applied with the same rigidity and careful attention to detail. The ideal form of treatment would combine the best elements of a sanatorium and an orthopaedic hospital. The patient should be placed under the best conditions to obtain sunshine, fresh air, cheerful surroundings, good food, and rest both to the body generally and to the affected joints in particular. Rest may be either in bed or partly on a couch, according to circumstances, and active movements such as would

be likely to strain the affected joints should on no account be allowed. Treatment on these lines may have to be continued for a long time, perhaps three months to a year or more, and this should be clearly explained to the patient at the outset.

Local Treatment of Joints

The objects are to allay inflammation, relieve pain, and prevent ankylosis and deformity. Gentle passive movements may be carried out for a short time daily, but all active movements should be restricted so far as possible. Pain in an inflamed joint, in rheumatoid arthritis as in any other condition, is largely due to mobility of the joint on the one hand and spasmodic attempts of the muscles to prevent it on the other. Immobilization of the affected joints is therefore strongly indicated both to allay inflammation and to relieve pain.

Acute arthritis is always associated with early and rapidly progressive muscular wasting, which affects certain groups of muscles more than others, and the loss of muscular balance produces deformities which may soon become permanent if not prevented or treated in the earlier stages. Flexion contractures of the knee, elbow, wrist, and interphalangeal joints are notable examples. Unfortunately the measures commonly employed to restore muscle function—massage, galvanism, etc.—are singularly ineffective so long as inflammation persists in the joints. The only thing to do is to try to shorten the active stage and to put the joints in the optimum position to prevent deformity while this active stage lasts. Treatment, therefore, largely resolves itself into a matter of orthopaedics, the exact measures to be adopted depending on the features of the individual case and probably requiring modification as time goes on. Splints usually fail to achieve their objects, and far better results are obtained by the application of light plaster casings which can be split laterally to allow of their periodical temporary removal. Gentle passive movements every two or three days, preceded by hot fomentations or the application of radiant heat to the joints, should prevent the formation of adhesions.

Diet and Drugs

A generous mixed diet should be ordered. Carbohydrate tolerance is diminished in some cases, and if flatulence or other symptoms of amylaceous dyspepsia occur it may be necessary to reduce the amount of starchy food. Though there is no specific remedy for rheumatoid arthritis many circumstances may arise requiring some form of drug treatment.

Debility.—Any good preparation of cod-liver oil and malt in tablespoonful doses after meals, or, failing this, haliverol, 3 minims, may be very valuable.

Anaemia.—Present in greater or less degree in most cases, anaemia requires iron and arsenic or both:

R. Ferri sulph. exsic.	...	...	gr. 1
Acid. arseniosi	...	...	gr. 1/60
Aloin	...	...	gr. 1/8
Ext. hyoscyam.	...	...	gr. 1/3
Ft. pil.			

or ferri et ammon. cit. (40 grains) may be given in a mixture after meals.

Achlorhydria.—Acid. hydrochlor. dil., 20 to 30 minims in lemonade after meals, must be given indefinitely for the achlorhydria which is found in 20 per cent. of the cases.

Chronic Intestinal Infection.—When the patient's symptoms or an examination of faeces suggest the presence of a chronic intestinal infection some intestinal antiseptic is indicated—for example, salol, grains x, guaiacol carb., grains x, or hyd. cum cret., grains 1/2 to 1, three times a day after food. Salol should not be continued for more than a fortnight at a time. An old remedy which is of great value in some cases is mist. chlori c quinina (see Martindale's *Pharmacopoeia*), one ounce in half a tumbler of water after meals. It should be dispensed without the syrup of orange, which may be added, if necessary, just before taking. This mixture may be taken indefinitely.

Pain.—Aspirin is as efficient as any other analgesic, and may be given as required either alone or combined with phenacetin. Aspirin and veramon, 5 grains each, are useful at bedtime to relieve pain and induce sleep. In severe cases a nightly opium pill, 1/2 to 1 grain, may be prescribed. Injections of morphine or heroin are obviously to be avoided.

Gold, Vaccines, and Protein Shock

Good results have been reported in some cases from treatment with gold salts; in others severe reactions in the way of skin rashes, diarrhoea, etc., have occurred. The treatment is more or less experimental and of doubtful value.

Autogenous and stock vaccines have been extensively used in all stages of this disease. They, too, appear to be of very doubtful value. The routine treatment of all cases of rheumatoid arthritis with stock vaccines seems to have nothing to recommend it either in theory or in practice.

Protein injections (for example, T.A.B. vaccine 100 millions) produce temporary improvement in some cases and may be repeated weekly. Reactions are often severe, and the condition of the patient usually relapses to its original state when the injections are discontinued.

Treatment in Later Stages

When the acute stage has subsided active movements may be gradually resumed and continued, provided they cause no severe reaction. In cases in which the small joints of the foot have been involved, causing stretching of ligaments and a tendency to flat-foot, the patient should not be allowed to walk without well-fitting arch supports. Massage and galvanism to the wasted muscles (but not to the joints) may now be profitably employed. Treatment on general lines should be continued as before, on the assumption that the disease is only arrested, not cured.

Spa Treatment

Patients with active arthritis are not suitable for spa treatment as generally understood—they are better in bed. In the later chronic stages a course of baths, douches, mud packs, etc., may be of the greatest help, provided treatment is carefully graduated and supervised, to avoid excessive reactions. Deep pool baths with undercurrent douches, pool baths allowing active or passive movements under the surface of the water, radiant heat baths, local treatment to the joints in the form of mud packs, radiant heat, ionization, massage douches to muscles, diathermy, etc., all have their uses in helping to restore greater mobility to the joints, to relieve pain and stiffness, and at the same time to improve the patient's general condition by stimulation of metabolic activity and elimination of toxins. When spa treatment is not available radiant heat or vapour baths may be given two or three times weekly at the patient's home with great advantage.

Climacteric Arthritis

Climacteric arthritis occurs exclusively in middle-aged women, affects the knees and occasionally one or more

other joints such as the wrists, and causes proliferative synovitis, the so-called "villous arthritis." The fact that this type of arthritis is confined to women at or about the menopause suggests that disturbance of endocrine balance is primarily responsible. The majority of patients are over-weight and exhibit the stigmata of hypothyroidism. Flat-foot is present in many cases, imposing extra strain on the knees. The indications for treatment are:

1. *To Restore Endocrine Balance.*—Thyroid ext. sic., 1 to 2 grains, may be given three times daily, the patient being under periodical observation and the dose of thyroid being varied according to its effects. In many cases pituitary extract (whole gland), 3 grains, may with advantage be prescribed with each dose of thyroid.

2. *To Diminish Strain on the Knees.*—Patients suffering from obesity must be dieted to reduce the weight, carbohydrates and fat being diminished. Definite instructions must be given, and the patient must be induced to co-operate strictly and loyally in carrying them out. When flat-foot is present, as determined by observation with the patient standing, well-fitting supports, preferably incorporated in the shoe itself, must be worn regularly. The patient should walk or stand as little as possible till the pain and swelling subside. Crêpe bandages to the knees should be worn to steady them, and are more satisfactory than elastic knee-caps.

Drug Treatment

Iodine, preferably the French tincture, 3 to 10 minims, may be taken twice or thrice daily in a wineglass of water or milk so long as no signs of iodism result. Aspirin, phenacetin, or any similar analgesic may be given as required to relieve pain. When there is any suspicion of a gouty element the following combination may help:

R. Ext. colchici	...	...	...	gr. 1/2
Guaiaci resin.	...	...	...	gr. 2
Sulph. sublim.	...	...	...	gr. 2

Ft. cachet. To be taken three times a day.

This may usefully be given in combination with thyroid.

Local and General Treatment

Counter-irritation to the knees may be applied by a series of blisters or by the use of a stimulating liniment such as lin. chlorof. co., lin. terebinth, A.B.C. liniment, or any of the numerous suitable proprietary liniments available.

Physiotherapeutic measures, to which cases of climacteric arthritis respond exceedingly well, are applied with two objects in view.

The first is to improve the patient's metabolic and endocrine activities and reduce weight. Radiant heat, vapour or massage douche baths, spinal douches, needle baths, etc.—all of which induce sweating, improve the circulation through the skin, subcutaneous tissues, and muscles, and stimulate cutaneo-sympathetic responses—improve the patient's metabolic and endocrine activities and reduce weight.

Secondly, local treatment to the knees, and to other joints which are occasionally affected, is directed towards relief of pain, removal of inflammatory exudates and deposits, and stimulation of reparatory processes. Local packs of mud or peat followed by low-pressure alternating douches may be given, or, alternatively, local radiant heat followed by ionization or diathermy. Good results in some cases have been claimed for deep x-ray therapy.

Treatment on general lines must be continued for an indefinite time after the acute symptoms have subsided, any recurrence of pain or swelling being taken as an indication for local treatment in addition. Neglected cases inevitably develop degenerative changes leading to intractable osteo-arthritis.