LEADING ARTICLE

WHY RHEUMATOLOGY?

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INTRODUCTION

Rheumatology encompasses a wide spectrum of diseases ranging from the common soft tissue rheumatism syndrome to uncommon life-threatening connective tissue diseases such as polyarteritis nodosa. Some of the rheumatic diseases have been recognised since the 5th century B.C. The term "rheumatism" is derived from a Greek word meaning a stream or flow and it appears to have been introduced in medieval times to designate pain caused by a deranged flow from one of the four cardinal "humours" - blood, phlegm, bile (chlor) and black bile (melancholy) into one of the many cavities of the body including joints.

PREVALENCE OF RHEUMATIC DISEASES

Rheumatic diseases are the most prevalent of the chronic disorder in the developed countries to-day. Several surveys in the United Kingdom and United States have estimated the overall prevalence of rheumatic disease at 6% - 10% of the adult population[1,2]. Rheumatoid arthritis alone affects 1% to 3% of the population[3]. In Singapore a recent pilot survey revealed that 5.8% of the respondents had significant joint pains[4]. A one-day morbidity survey found that arthritis/ rheumatism was the second commonest condition seen in general practitioners clinics accounting for 6.1% of all attendances[5]. It ranks sixth in diseases treated at government primary health clinics. Unlike most acute systemic illnesses with a finite course and outcome, arthritis is often a condition with a potential for permanent disability.

MANAGEMENT OF RHEUMATIC DISEASES

Rheumatic diseases are so prevalent that primary care physicians and not subspecialists must assume management responsibility. Even in the United States, fewer than 5% of the 20 million Americans afflicted with a rheumatic disease are seen by a rheumatologist at any point in their illness[6]. Most of these patients are treated by primary care physicians, 70% of whom have little or no special training in arthritis and have little knowledge of the treatment and rehabilitation techniques available except for the use of current NSAIDS promoted by pharmaceutical firms!

A long range goal for the medical community must therefore be that "every primary and family physician should know the criteria for the early diagnosis of arthritis, techniques of treatment and when to refer patients for specialized care[7]. This can be effected by increasing rheumatological teaching in medical schools, improve postgraduate training and increasing continuing medical education activities.

Referrals to Rheumatology

It has been claimed that many referral for a specialist rheumatological opinion is unnecessary[8]. Most rheumatologists consider that 15-25% of referrals to them could be avoided if general practitioners have access to services like physiotherapy, occupational therapy, radiology and orthopaedics and have the experience to use them[9,10]. It has also been estimated that 80% of new cosultations were for non-inflammatory musculoskeletal disorders like osteoarthritis, low back pain, neck pain, soft tissue lesions such as tennis elbow and generalized soft tissue rheumatism[11]. The family physician or the generalist is well equipped to manage these conditions by advice and reassurance, by the judicious use of analgesics and anti-inflammatory drugs, by intralesional corticosteroid injections and by physiotherapy.

Patient Education

It is well known that the optimal management of a chronic disease requires a high degree of patient involvement. Without such a commitment, compliance with a therapeutic regimen whether it is physical or pharmacological is likely to be less than ideal and the symptomatic control of disease consequently suboptimal. This is particularly so for a chronic disease like arthritis where education has to extend to the patient's family and support group as well.

Treatment Goals

The physician who treats a patient with a rheumatic disease should consider both short-term and long-term goals. In most instances, rheumatic diseases lack specific aetiology and therefore treatment is empirical. Short-term goals should include making a proper diagnosis, providing a prognosis and prescribing specific treatment measures when available such as to relieve pain and prevent disability. However many forms of treatment might increase morbidity. The clinician must avoid using short-term treatment that can lead to catastrophe in the long-term.

Shared Management

A system of shared management between hospital and primary care can help relieve congestion in hospital clinics. Too often patients referred simply for advice and reassurance continue to be seen by the hospital. Better communication between specialists and general practitioners would help to prevent this waste of hospital resources.

THE FUTURE

The curtain is rising on the most exciting era of rheumatology. Over the next 50 years there will be an explosion of new knowledge and this will allow for the development of therapeutic strategies that will have dramatic beneficial effects

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on patients with rheumatic diseases.

A peep at the crystal ball may reveal the following prophesies in the next 50 years[12].

A. 5 Major Scientific "Breakthroughs" relevant to rheumatology which will occur during the next 50 years

1. Discovery of relationship between infections and various forms of inflammatory arthritis.
2. Elucidation of specific aetiology and pathogeneses of rheumatoid arthritis and systemic lupus erythematosus (? virus).
3. Better understanding of the genetic basis of rheumatic diseases including RA and SLE.
4. Development of a vaccine for the prevention of RA and SLE. These diseases will then be eradicated.
5. Further understanding of the factors regulating cartilage and bone regeneration.

B. 5 Major Clinical Advances in Rheumatology during the next 50 years

1. Greater understanding of the epidemiology of rheumatic diseases.
2. Recognition of clinical subsets of rheumatic disease.
3. Development of safer and more effective NSAIDS.
4. Development of immunotherapy and/or use of genetic engineering for specific disease treatments.
5. Major advances in joint surgery - better prosthetic joints, use of joint transplantation etc.

C. 5 Major Changes in Rheumatic Practice in next 50 years

1. Many existing illness will be cured or prevented; new illness will emerge.
2. More emphasis on diseases of the elderly (eg. osteoarthritis).
3. More effective therapies; more ambulatory care and less hospital care.
4. More group practice and greater use of "team approach".
5. More scientific rationale for treatment of rheumatic disease.

Biological Modifers in Rheumatic Disease

Drug therapy have been the mainstream of medical treatment in rheumatic diseases. However it is possible that in the next decade new bio-technology derived products will be useful in the treatment of rheumatic diseases[13].

The three major biologicals that are currently being tested or considered for therapeutic use in disease states are lymphokines, monoclonal antibodies and growth factors. These biological modifiers will be the wave of the future.

WHY RHEUMATOLOGY

So finally we come back to the question "Why Rheumatology?".

No better answer could be obtained than by quoting from Dr F Dudley Hart, the Father of British rheumatology[14].

1. Rheumatology runs right through the whole field of general medicine. He who knows the rheumatic disorders knows a great deal of medicine.
2. Rheumatology is a huge clinical, therapeutic, social and research challenge. There is a lot of it about, and the field for research in all aspects is wide open.
3. Rheumatic diseases are everywhere but strikingly different in different races and countries. In most countries the subject is virtually untapped and the rheumatic disorder an unopened book.
4. Therapeutically it covers a wider field than most specialities, dealing with pharmacology, physical, social and occupational medicine, surgery, nursing, immunology etc. The therapeutic team is a large one, the rheumatologist being the co-ordinator or leader of the group.
5. In the diagnosis and treatment of most rheumatic conditions, rheumatology makes great demands on one. There are around 180 conditions to be considered in the differential diagnosis of any so-called rheumatic disorder.
6. In fact a good rheumatologist has to be a mixture of a good psychologist, an applied pharmacologist, have a practical knowledge of physical and occupational methods, be a respected father confessor cum general physician - in essence be a wide-spectrum and sympathetic therapist which is the hall-mark of a humane doctor.
7. Finally you meet such a nice lot of people as patients and colleagues. It is a constant wonder how brave and stoical most rheumatic sufferers are.

You now have all the answers.

References

1. Bennett PH, Wood PHN : Population Studies of the Rheumatic Diseases, Amsterdam. Excerpta Medica, 1968
2. Masi AT, Medsger TA : Epidemiology of the rheumatic diseases, in McCarty DJ (ed) : Arthritis and Allied Conditions, Philadelphia, Lea and Febiger, 1979; 11-35
3. O'Sullivan JB, Cathcart ES : The prevalence of rheumatoid arthritis. Ann Intern Med 1972; 76: 573-7
4. Boey ML, Lau C, Ng SC, Tye CY, Phoon WO, Feng PH : A community-based arthritis survey in Singapore - A pilot study. Singapore Med J 1988; 29: 458-61
5. A One-Day Morbidity Survey of Outpatients. Singapore Medical Association Newsletter Vol 20, No 11, March 1990
6. Ogryzlo MA : Specialty of rheumatology - manpower requirements. J Rheum 1975; 2: 1-4
7. Engleman EP : The national arthritis plan : an overview. Arthritis Rheum 1977; 20: 1-6
8. Samanta A, Roy S : Referrals from general practice to a rheumatology clinic. Br J Rheumatol 1988; 27: 74-6
9. Fordham R, Hodkinson C : A cost benefit analysis of open access to physiotherapy for general practitioners. York : Centre for Health Economics, University of York, 1987 (Discussion paper 29)
10. Payne S, Ramaiah RS, Jones DT : Open access to orthopaedic appliances for general practitioners. Brit Med J 1987; 294: 485-6
11. Billing JRA, Mole KS : Rheumatology in general practice: a survey in world rheumatism year 1977. J R Coll Gen Pract 1977; 27: 271-5
12. Klinenberg JR : 1984-2034 : The next half-century for American rheumatology. Arthritis Rheum 1985; 28: 1-7
13. Scheinberg MA : Clinical trials with biological response modifiers in rheumatic diseases. J Rheum 1988; 15: 1056-7
14. Hart FD. Viewpoint - Why take up rheumatology? Ann Rheum Dis 1980; 39: 97-8