Observations on the approach to the arthropathies in General Practice

by Dr J.J. du Toit

The arthropathies and allied conditions make up a considerable part of the practice load. A South African practitioner in a European area can expect the following per year —

Conditions	Consultations per year
Osteo-Arthrosis	248
Rheumatoid Arthritis and allied conditions	110
Lumbago (other than sciatica)	116
Non-articular Rheumatism	96
Frozen shoulder	21

Adapted from Second British Morbidity Survey (70-71)

These are consultations, not new conditions. In our practice in Port Elizabeth 1,85 new cases of rheumatoid arthritis are seen per year per partner.

Many conditions causing musculoskeletal pain encountered in General Practice are such that no label can be applied — the label does not exist.

Diagnosis is further complicated by the evanescent self-limiting nature of many diseases seen by the doctor on first contact as well as the minor nature of the deviations from all ill-defined ranges of normality, and I say this without any sense of shame.

Rheumatology is in an early stage of development and in most patients the underlying cause or causes are not understood.

This means that such diagnostic labels as exist do not convey clear ideas concerning specific pathological changes, aetiologies or even prognosis.

Therapy cannot be regarded as specific, it is still largely symptomatic.

The General Practitioner may thus be reluctant to embark too readily on a series of investigations which may cause greater disturbance in the patient than his own symptom complex.

Common GP strategies dealing or defining the problem of arthropathies include the following.

General Practice Strategy

1 Pattern recognition
2. Symptom-to-treatment
3. The response to treatment will tell
4. Time-will-tell
5. Negative diagnosis
6. Diagnostic work-up

1. Pattern recognition may be very superficial, eg. Wry neck in children is part of a set pattern without known pathology but with a set natural history.
2. From symptom directly to treatment without a sustained diagnostic workup. Minor fibrositic aches and pains and new backaches handled this way.
3. Treatment will tell: response to colchicine is diagnostic or anti-inflammatory treatment in Tietze's syndrome has more diagnostic value than any investigations.
4. Time will tell: old age or new arthrosis?
5. Negative diagnosis: difference between Still's disease and glandular fever. Again I do not apologise for using these methods in my practice.
6. The traditional diagnostic workup history; examination; special investigations is used for the firm diagnosis of the more serious and acute arthrosis like Rheumatoid Arthritis.

The rest of the talk will concern this method but in this illdefined field problem definitive will always be heavily dependant on probability diagnosis.

Full physical examination of patient

1. Is elderly or middle-aged and infrequent. Attender now complaining of "my rheumatics"
2. Has systemic upset - weightloss, fever and not looking well
3. Has multiple joint involvement
4. Is new to the practice
5. Is an adolescent or a child
6. Before embarking on an extensive course of second line treatment or non-response to first line treatment

The importance of a good history need not be stressed. In general practice the physical examination will produce a diagnosis not suspected from the history of only 6% of cases but this is reversed in the arthropathies where the examination is of equal or better diagnostic value.

These examinations may be limited to a local inspection of Heberden's nodes or limited to a patient satisfying perusal of a painful lumbar area or may extend to a full physical workup.

If during these or later examinations a joint should be aspirated,

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please do not discard the aspirate but avail the opportunity which may not come again for many months, to examine it for the following — (NOTE that almost any joint may be aspirated — shoulders, elbows, wrists, knees, ankles and the metatarso-phalangeal joints of the toes. This often solves the problem of the elderly osteo-arthritic with a painfull MP joint diagnosed and treated without success for gout).

1. Cell: unstained drop for leucocytes, mononuclears and phagocytes
2. Note: viscosity from needle flow, colour and translucency
3. Tendency to clot
4. Crystals - uric and pyrophosphates CA. - appetites
5. Send for culture and sensitivity if indicated

For cells — note the number of leucocytes on the direct unstained smear and as you improve, start looking for mononuclears or phagocytes.

Viscosity you will know from the needle flow. Look at the colour. Examine for crystals which might be uric acid pyrophosphates or Ca appetitie.

This is best done with a polarizing filter but uric acid crystals can be seen with the naked eye and differentiated from fibrin threads. Culture and sensitivity may be a once-only change. If antibiotics are used the organism may never be grown.

If this examination is to be done at the surgery, the minimum armenterium is as follows —

Minimum armementarium

1. Microscope with polaroid filter - used for-
   (A) Microscopy of urine
   (B) Examination of joint fluid
   (C) White blood count
2. WBC counting chamber
3. Centrifuge
4. Haemoglobinometer
5. Sedimentation rate set
6. Textbook (in surgery)
7. A true interest in the patient and his welfare

All of this is easily within the reach of the GP and even his nurse.

At the end of the first consultation the practitioner must be able to exclude the following —

First consultation urgency

1. Septic arthritis
2. Rheumatic fever
3. Polymyalgia Rheumatica
4. Gout
5. Tietze's Syndrome

Gout is included not because of the life threatening nature of the disease, but because a missed diagnosis is a serious disservice to the patient and the practitioner is disgracing his profession.

Tietze's syndrome again, not because of its seriousness, but because it is a great generator of anxiety and income.

Spare the patient the ECG, X-ray chest for malignant conditions and mammography. Start her on an inflammatory immediately and hope that the treatment-will-tell.

If the patient is Afrikaans speaking, please give the condition any other acceptable name.

Polymyalgia rheumatica — a condition of soft tissue pain in the shoulder or hip girdles with a high sedimentation rate is on this list because of its association in 30% of cases with temporal arteritis.

The patient might be blind before the second consultation, and treatment with steroids are instantly effective.

Again at the end of the first consultation or at the latest the second, the patient must be reviewed for the following conditions —

Drugs producing hydrallazine syndrome: S.L.E. — like syndrome

Procainamide (Pronestyl)
Hydrallazine (Apresoline, Nepresol, Adelphaine)
Oral contraceptives
Penicillin
Sulphonamides
Tetracycline
Streptomycin
Gentamycin
Griseofulvin
Phenylbutazone
Thiouracil - two mechanisms
Reserpine
Isoniazid (INH etc)
Methyldopa (Aldomet)

and if he suffered from gout he should be reviewed for. —

Drugs producing hyperuricaemia and acute gout

1. Oral diuretics (not Triamterene (Dytac))
   Remember combinations eg Moducren Protensin
2. Mersalyl
3. Allopurinal therapy in early stages
4. Uricosuric drugs - benemid anturan
5. Cytotoxic drugs (lymphoma)
6. Excessive antithyroid drugs
7. Some anti-hypertesive drugs - indapamide (natrilix)
8. Some anti-tuberculous drugs
9. Aspirin

At the end of this second consultation the following question must be answered. *Has this patient a more than transient arthritis with a reversable primary cause?*

If you bear in mind a present day classification of arthritis, this seems a formidable task. However, if you keep the following in your head or on your desk, you will miss less than 0.01% of these in South Africa.

Conditions introducing more than transient secondary arthritis and remissable at time of arthritis onset

1. Drug induced SLE
2. Drug induced gout and acute metabolic gout
3. Brucellosis
4. Syphilis
5. Gonorrhoea
6. Chlamydial arthritis - Reiters lymphogranuloma venereum
7. Leprosy
8. Hyperthyroidism
9. Leukaemia (partially remissable). Treatment might cause secondary gout
10. Malignancy:
    (A) Pseudo-hypertrophic osteoarthropathy
    (B) Carcinoma arthritis
    (C) Polymyalgia rheumatica

I have excluded many canaries here, eg. achromegaly and hyperparathyroidism. These included in the 0.01% you are allowed to miss.

Special investigations

The following laboratory and special investigations are available in South Africa:

Available investigations

1. Haematological:
   Bloodcount. WBC important. ESR, blood viscosity acute phase proteins. C. reactive protein platelet count
2. Immunological:
   RA factor - Rose Waaler, latex, diff. agglutination test
   A-nuclear antibody, D.N.A. binding test, HLA typing (HLA-B27), antistrep titre, Brucella aggl. test, antibodies to viruses, GC complement fixation, chlymidia agglutination test, serological tests for syphilis
3. Biochemical:
   Creatinine & urea, alk. phosphatase, calcium, transaminase, uric acid
4. Synovial fluid:
   Appearance fibrin clot, viscosity cell count, cell appearance, crystals, immunological tests on synovial fluid of little value
5. Histological: (Biopsy)
   Synovium, bone marrow, muscle, skin, temporal artery, renal pleurae, rectal small bowel, salivary gland
6. Arthroscopy:
7. Electromyography:
8. Radiological:

Again this is a very formidable list indeed.

Only the following indicate present disease, all the others are irregularly positive or negative in health or disease — ESR (almost always); Brucella agglutinations; chlamydia agglutination tests in high titre: abnormal synovial fluid and abnormal findings; histologically on arthroscopy or X-ray (the latter is particularly useful).

Only three tests are definitely diagnostic — ANA — antibody (if negative, the patient does not have SLE) uric acid crystals in synovial fluid means gout. N. gonorrhoea in synovial fluid is GC arthritis.

Arthroscopy X-ray changes and biopsy findings can be definitively diagnostic. Many of these tests are of value in assessing prognosis and in monitoring treatment.

No attempt has been made to define systematic diagnosis and the observations are more a distillate of my own mistakes than a systemic diagnostic methology.

Uric acid estimation is a much favoured investigation. It is almost completely useless. If high or low, the patient might or might not have gout or might or might not have secondary hyperuricaemia.

A final word about the treatment of

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rheumatoid arthritis: should a patient with proven Rheumatoid Arthritis be treated by Penicillamine, gold or immuno-suppressives?

With the armamentarium mentioned above, I consider that Penicillamine is suitable for General Practice. The others are not, at least not for initiative of therapy.

I have five patients under treatment with Penicillamine. They are seen weekly for WBC, tests for albuminuria and assessment. These are all done in the surgery and it is a pleasure to see hopeless invalids improving into useful citizens.

Should steroids ever be used in general practice for the treatment of rheumatoid arthritis?

The only indication is the elderly aged 60 patient with extensive rheumatoid arthritis that can often be kept symptomfree on 5 mgm of Prednisone per day, otherwise the patient considered for steroid therapy should be referred to a rheumatologist.

Dr J.J. du Toit behaal sy MBChB in Kaapstad in 1951. Hy doen sy Huis dokter jaar in Groote Schuur en gaan dan praktiseer as huisarts in Port Elizabeth waar hy hom nog steeds bevind.

Hy is deurentyd bemoeid met huisarts sake en is 'n aktiewe lid van die Uitvoerende Komitee van die Nasionale Algemene Praktisyne Groep.

Hy dien ook op een van die komitees van die Brown Kommissie en was 'n vorige President van die Kaap Middeland tak van die Mediese Vereeniging.

Relief for anxiety sufferers

Ciba-Geigy has introduced a sustained release formulation of oxprenolol hydrochloride 80 mg.

Trasicor 80S is recommended for anxiety states and excessive stress reactions due to sympathetic hyperactivity.

It keeps the pressure off the anxious patient without causing sedation or the risk of addiction and protects the cardiovascular system against the effects of stress. The new formulation facilitates a once-daily dosage as the plasma peaks of active ingredient achieved are maintained for an extended period. *TRASICOR 80S is available in calendar packs of 28 tablets containing 80mg oxprenolol HCL in a sustained release base.