LEADER

Female hormones and articular cartilage  p 139
There has always been this fascinating difference in sex incidence of most forms of arthritis. We have recently explored in various articles the effect of pregnancy and contraception on arthritis: What about the effect of natural oestrogens themselves? They seem to have both immunosuppressive and immunostimulatory effects. For instance, they suppress chondrocyte proliferation and seem to work by a complex interaction with cytokines. Much more needs to be learnt about their effects.

SCIENTIFIC PAPERS

Rheumatoid factor and normal lymphocytes  p 142
Rheumatoid factor isolated from the sera of patients with juvenile rheumatoid arthritis stimulated normal lymphocytes to produce IgG and IgM. The IgM had considerable rheumatoid factor activity. Pokeweed mitogen had no such effect. The role of rheumatoid factors is far from being well understood and this study suggests that there is a relation between the activator and IgM, or hidden IgM, rheumatoid factor. Rheumatoid factor derived from children with arthritis seems to be comparable with that from adults.

Neutrophils, rheumatoid arthritis (RA), and synovial fluid  p 147
Polymorphonuclear leucocytes and macrophages can be stimulated to produce many reactive oxygen metabolites and proteolytic enzymes. Synovial fluid neutrophils from patients with RA were tested for their ability to secrete O2 and to produce luminol dependent chemiluminescence. Results showed that they had been either primed or activated in vivo. In other words they had been exposed to both priming and activating agents within rheumatoid joints, and the interplay between these various processes seems to dictate how the neutrophil population will respond to further stimulation.

Ankylosing spondylitis (AS), HLA-B27 status, and disease activity  p 154
Do patients with AS who are HLA-B27 positive react differently from those who are HLA-B27 negative? There is much evidence that they do and this Dutch report confirms this. Disease activity is associated with rises in C reactive protein and haptoglobin concentrations in the HLA-B27 positive group, but not with changes in IgA. Conversely, the HLA-B27 negative group showed best correlations the other way round. Different pathogenic mechanisms may be working, therefore.

Back pain, middle aged women, and radiology  p 162
The same two groups as in the previous study had their radiological findings evaluated. Those initially with back pain commonly had disc degeneration. Osteoporotic vertebral fractures were quite evident in both groups. The prevalence of disc degeneration and osteoporotic fractures rose inexorably over nine years in both groups, and body mass index was clearly related to this. The natural histories of development of these two changes seemed, however, to be independent of each other.

Antinuclear antibodies and cultured cell lines  p 167
Antinuclear activity was assessed in serum from patients with systemic lupus erythematosus (SLE) and from those with a variety of other autoimmune rheumatic diseases using a transformed keratinocyte cell line and normal keratinocytes. The effect of ultraviolet irradiation on the availability of nuclear antigens in the cell substrates was also studied. All keratinocytes proved to be sensitive. No correlation between disease activity and antinuclear antibodies was discovered, however: discovering them helps make the diagnosis but does little to predict disease activity.

Anticardiolipin antibodies and SLE in Malaysia  p 173
Systemic lupus erythematosus is comparatively common in Malaysia and the population is of mixed ethnic origins. It is interesting therefore to note whether anticardiolipin antibodies are commonly found. There proves to be a low general prevalence, and thrombosis is not often seen either. When anticardiolipin antibodies are found they are usually of IgG or mixed IgG and IgM type. These findings are quite different from those found in Europe and suggest differences in either genetic or environmental (or both) influences on the course of this disease.

CASE REPORTS

Lupus peritonitis and ascites  p 176
Ascites is multifactorial in origin in SLE and chronic ascites is rare. Described here is an example in a 25 year old white woman who went on to develop renal disease and more general serositis. Her disease responded, however, to pulsed methylprednisolone, azathioprine, and diuretics.

Protein losing enteropathy and collagen disease  p 178
Four patients are described with a protein losing enteropathy (mainly with SLE) needing treatment with large doses of prednisolone. Their increased capillary permeability seemed to be associated with deposits of C3 in the capillary walls of intestinal villi, at least in some. This complication is unusual in collagen diseases but has also been described in Sjogren's syndrome. The presence of hypoproteinanaemia, it is suggested, should lead to a search for this possible underlying process.

Shunt nephritis and transient arthritis  p 182
Shunt nephritis is rarely seen as a complication of a chronically infected ventriculostial shunt. Just such an event is described here in a young boy who developed also transient arthritis with a positive rheumatoid factor. The offending organism was Staphylococcus epidermidis. Treatment with antibiotics and removal of the shunt cured him. Immune complex formation is believed to have been the underlying factor.
Malabsorption, intramuscular iron-dextran, and rhabdomyolysis p 184
A middle aged white man had chronic malabsorption and selective IgA deficiency with severe iron, selenium, and vitamin E deprivation as well. He was treated with intramuscular iron-dextran and the poor man went on to develop polymyositis and rhabdomyolysis just to add to his troubles. Reactions to this form of iron treatment are of course well known and, possibly, the free iron present activated free radicals and this led to the further damage.

Unusual popliteal cysts p 187
Poptileal cysts are commonly seen and often cause little trouble except when they rupture. A lateral popliteal cyst is much less common than a medially situated one and two examples are described here where a lateral cyst ruptured into the anterolateral lower leg. This gave rise to various problems of diagnosis and management.

DISPATCH
From America p 189
As our American dispatch article indicates the boom years of the 80s are over. As a result the United States is less able to cope with increasing health care costs (What nation now is?) and the effect on rheumatologists is likely to be severe. In particular, academic rheumatology is feeling a strong wind of change. Increasingly, accepted guidelines for treatment are being produced but are they likely to become a straight-jacket which inhibits the innovator and delays progress? Time will tell.

REVIEW
Polymyositis, dermatomyositis p 191
Polymyositis and dermatomyositis form a heterogeneous and dangerous group of diseases. Our review looks at recent developments in the field, including its epidemiology and likely pathogenic mechanisms. The role of viruses as a triggering factor is becoming an increasingly important factor to understand. Classification needs to be updated because treatment and prognosis depend vitally on the form of inflammatory myopathy present. Inclusion body myositis for instance may not be inflammatory at all. We have a lot to learn.

VIEWPOINT
Hyaluronan and its pathological role p 196
Hyaluronan is present in interstitial spaces in most animal tissues, including the joint space. There, for example, it is responsible for the unique viscoelastic effect of synovial fluid, but in RA it is depolymerised with adverse results. Its presence seems to be important for the function of the normal joint and its degradation in various forms of arthritis has led to attempts to inject it into the joint cavity as treatment. Until what happens to it then is better understood we may be responsible for doing more harm than good.