**Journal summary**

**Leader**

**Pregnancy and phospholipid antibodies**  p 795

This issue of the *Annals* looks particularly at many items of interest in systemic lupus erythematosus (SLE). The association between abortion and the presence of phospholipid antibodies is now well recognised. Coagulation abnormalities in vivo are well described with them, and perhaps the high risk of abortion when these antibodies are present is due to placental infarction. This appears to be a particular problem in SLE, and the leader examines this at length. There is still controversy about the best way to treat affected women and the author very sensibly calls for a properly controlled prospective trial to throw light on the matter.

**Scientific papers**

**Abortion and phospholipid antibodies**  p 798

To highlight the problem this Spanish paper describes seven women with antiphospholipid antibodies and not one successful previous pregnancy. Treatment with aspirin and steroids for their current pregnancy, however, resulted in the survival of seven out of nine babies. This gives encouragement for the future, but only a properly conducted prospective trial of various treatments, as suggested above, will give us a more definitive answer.

**SLE and interleukin 2 receptor**  p 803

The immunological abnormalities in SLE have been much studied and are now better understood, though there is still a long way to go. T cells are activated in this disease and interleukin 2 receptors have been detected on the cell surface. This study suggests that as higher concentrations of soluble interleukin 2 receptor are seen in SLE, particularly when it is active, it may serve as a useful new indicator for this disease.

**Outcome in SLE and renal function**  p 810

This is the third in a series of papers from Holland looking at outcome in SLE. (The previous papers are *Annals of the Rheumatic Diseases* 1989; 48: 447–54 and 1989; 48: 455–60.) The prognosis in recent years has certainly proved to be much less gloomy than previously perceived. About one third of the patients in this series developed renal problems, usually in the first three years after diagnosis. Treatment had little effect on survival and the age of 25 years seemed to be a watershed—the prognosis with renal involvement is worse for men after this, worse for women before it.

**Pain and juvenile rheumatoid arthritis**  p 817

Children are very resilient and it is often difficult to assess the clinical state of the arthritis in such young patients. Pain has often been discounted as a reliable indicator of disease activity in them, but this paper suggests otherwise. There was no observed change in pain reporting with age, and the results of this study shed some useful light on an under-researched aspect of children’s arthritis.

**Epidermal growth factor, the synovium, and rheumatoid arthritis**  p 820

Human epidermal growth factor has been shown to be localised to the synovial lining layer, particularly not exclusively in rheumatoid arthritis. It appears to be in the rough endoplasmic reticulum of the type B synovial cell, and there is a positive correlation between its presence and neovascularisation of the synovium. This may prove to be a useful marker, therefore, for the synovial lining layer and such a marker has hitherto been lacking. It also highlights further the difference between synovial A and B cells.

**Detection of synovial hydroxyapatite crystals**  p 829

Hydroxyapatite crystals are less easy to identify in the synovial fluid than those of monosodium urate or calcium pyrophosphate. A method is described here that helps to give a more quantitative result. Scanning electron microscopy proved to be better than x ray diffraction.

**Induced arthritis, mobility, and cartilage damage**  p 832

Antigen induced arthritis in the mouse was used to study the effect of immobilisation on the patellar cartilage using scanning electron microscopy. Whereas immobilisation may help improve pain in the inflamed joint, this study suggests that it increases the risk of articular damage.

**Rheumatoid arthritis and immunoglobulin heavy chain variants**  p 838

Polymorphisms of the immunoglobulin heavy chain constant region at two loci were examined in rheumatoid arthritis as previous studies have suggested that genes linked to them may be involved in susceptibility to rheumatoid arthritis. This report,
however, found no evidence to support this, in conflict with results from some other groups. More study is needed, as is so often the case.

Lipocortin-1 in rheumatoid arthritis and SLE  

Induction of the protein lipocortin-1 inhibits phospholipase activity and may in part be the way that steroids reduce inflammation. This study looked at autoantibodies to this protein in controls and various connective tissue and other disorders. Raised levels were seen in steroid treated rheumatoid arthritis, but in patients with active SLE this was independent of treatment with steroids. Steroid treatment alone may not be enough to induce these antibodies, therefore, but they are nevertheless likely to be of importance in inflammatory processes.

Case reports

Septic arthritis from Propionibacterium acnes  

This organism is a rare cause of septic arthritis unless a prosthesis is present. Here, however, two examples are reported, probably introduced when a needle was put into the joint. The authors warn therefore that this bacterium cannot be ignored.

SLE anticardiolipin antibodies and infarction  

A woman with SLE and high levels of anticardiolipin antibodies suffered a myocardial infarction, and gave a previous history of a cerebral infarct after thrombotic obstruction of the internal carotid artery. Myocardial infarction is rare in SLE, cerebral infarction being more commonly described. Anticardiolipin antibodies are increasingly being implicated in the pathogenesis of such infarctive episodes.

Removal of anti-dsDNA antibodies in SLE  

A man with active SLE had his anti-dsDNA antibodies removed by a dextran sulphate gel column. The treatment seemed to be safer than plasmapheresis and to be effective, and there was no rebound phenomenon. The simultaneous use of a high steroid dose, however, made it difficult to be sure about the clinical response. This method of treatment looks promising and clearly needs further evaluation.

Rapid report

Interferon alfa in SLE  

A study of 25 untreated patients with SLE showed a good correlation between concentrations of serum interferon alfa and the degree of fever, while no such correlation could be found with serum concentrations of interleukin 1 or tumour necrosis factor. Acute phase proteins such as C reactive protein are rarely much raised in SLE, and this study suggests that possibly a different cytokine may mediate the fever in SLE than the fever of bacterial infections.

Review

Oxygen free radicals and synovitis  

Oxygen free radicals have a likely role as agents of tissue damage, though this is not specific to any particular group of diseases, but rather seems to be universal. It has even been implicated in the aging process. Just how important they really are in disease is a matter for debate. This review looks at the evidence: as the authors point out, oxygen radical reactions are fundamental to human biology because we are all aerobes. The article defies summary—read it for yourself as there is much in it to ponder over.

Viewpoint

Clinical trials and compliance  

Unless patients cooperate and take drugs in the prescribed manner no clinical trial is worth anything. This is of course to state the obvious, but the ways in which we measure the degree of compliance are unsatisfactory, and the value of the results may therefore be compromised. The authors look at this and come up with some suggestions for improvement.