operation and again 3 days after operation. A further dose of Au¹⁹⁸ colloid was introduced into the operated knee after an interval of either 6 or 12 months and the scanning was repeated.

Discussion

DR. H. L. F. CURREY (*London*) One does not know to what extent work on animals is comparable in this situation, but in experimental synovitis in rabbits the synovium is completely and fully regenerated by 6 weeks after synovectomy. But very often the disease process is back in it again to the same extent. I think there is some data on reoperated human knees, which suggest that the rate of regeneration of synovium is about 6 weeks.

A SPEAKER I quite agree that synovium is obviously fairly rapidly regenerated but this need not be the normal or, shall we say, the abnormal previous synovium. All you need are cells capable of taking up this colloid; they could be macrophages.

DR. J. H. GLYN (*London*) If you only take up two-thirds of the synovium by the anterior approach and leave behind most of the other third, it seems that what is important is whether the synovium is regenerating from the tissue in the posterior part of the knee joint. If so, it would be interesting to remove the other third of the synovium by a posterior synovectomy and see if the same speed of regeneration follows.

Athetoid Movements in Cervical Spondylosis. By E. R. BICKERSTAFF (*Birmingham*)

The combination of high cervical spondylosis with an abnormally narrow cervical canal can cause compression of the posterior part of the cord and loss of postural sense in the arms (and not the legs), resulting in athetoid 'searching' movements of the upper limbs when the eyes are shut. This causes serious disability, but other signs of the disease are often lacking, and if the existence of this condition is not appreciated many patients may be diagnosed as 'hysteria'.

Discussion

A SPEAKER Does this condition occur if the upper segments of the cervical spine are affected by arthrosis?

DR. BICKERSTAFF The fibres for position sense travel some distance up the spinal cord after entry, in a very irregular manner. For the muscles innervated from the upper part of the cervical cord to be affected the lesion would need to be at least as high as the foramen magnum. In occasional lesions at that level, such as in basilar invagination and some cases of syringomyelia, one may see it affecting the whole arm. But in cervical spondylosis the lesion is usually at a slightly lower level and affects the much lower fibres to the fingers.

DR. J. A. MATHEWS (*London*) How do you establish the causal relationship of cervical spondylosis to the athetoid movements?

DR. BICKERSTAFF This is of course an enormous question to answer. Usually one expects athetoid movements to be associated with disease at some very much higher level. But when one has seen a large number of patients who have no disease, as far as one can tell, of the brain or brain stem, who have a reproducible syndrome which is seen over and over again with lesions at one particular level in the cervical area, somewhere between the foramen magnum and C4/C5, this seems to me to make an association that one cannot escape from. The nicest way of proving this would be to find some method that completely cured the cervical spondylosis, and if the whole thing cleared up that would be proved indeed. I can only say that, in one or two patients who have had tumours affecting the posterior part of the spinal cord, these movements have cleared up on removal of the neoplasm.

DR. D. N. GOLDING (*Harlow*) Have you ever seen any improvement following the application of collars?

DR. BICKERSTAFF In the patients who have reached the advanced state that I showed here the answer certainly is 'no'.

Hypospray Treatment of Tennis Elbow. By G. R. HUGHES and H. L. F. CURREY (*London*) Published in full in the *Annals* (1969), 28, 58.

Thyroid Disorders presenting with Musculoskeletal Symptoms. By D. N. GOLDING (*Harlow*) Published in full in the *Annals* (1970), 29, 10.

Rheumatic Disease in Patients suffering from Scleral Disease. By P. FOWLER (*Manchester*)

Observations during a clinical trial of treatment of episcleritis and scleritis had suggested an unusual prevalence of rheumatic disease. This paper reports the findings in 42 patients diagnosed as having episcleritis (26) or scleritis (16) and selected at random from the Scleritis Clinic at Moorfields Eye Hospital, London, who were examined for associated diseases with special reference to the locomotor system.

Three patients had definite rheumatoid arthritis and a fourth had possible inactive rheumatoid arthritis. The diagnostic clinical features and radiological and laboratory findings were related to population studies of rheumatoid arthritis.

Sacroiliac joint changes were found in seven patients. There were one definite and one possible male case and one possible female case of ankylosing spondylitis, no cases of gout, one case of Reiter's disease, and many cases of degenerative joint disease.

While rheumatoid arthritis is known to be related to scleral disease, the finding of overt ankylosing spondylitis in overt or in a sub-clinical form with symptomless changes in the sacroiliac joints has not previously been reported in this connection.