in hips and knees. Thumbs, knees, wrists, ankles and subtaloid joints may be arthrodesed and prostheses can be put into hips, knees and hands.

Operation can be performed at almost any time in this disease. Contra-indications are a generalized flare-up or some other specific factor. Professor Bywaters showed an arteriogram of a hand with lack of circulation through the fingers. It would be most unwise to do any hand surgery on that patient. However, a high ESR and local activity do not contra-indicate surgery. In cases with a high ESR before surgery, for instance synovectomy of a knee, the ESR may fall after operation. Surgery does not affect the general condition adversely. Some surgeons have operated on over 5,000 patients, and we are now approaching 1,000 operations for rheumatoid arthritis, yet we have not seen one single flare-up of the disease as the result of surgery. I think this is important. There is no specific drug therapy during the surgical phase. If the patient is on cortisone the dose is increased for the day of the operation but the dose reverts to normal the following day. To succeed, operation must be performed early, and patients must be followed up for many years to see whether we are doing any good at all.

What is 'early' synovectomy? From a surgical point of view, from the time that the patient first presents if, in spite of all medical treatment, at the end of four months there is no improvement in the swelling, then the patient should have what is called 'early' synovectomy.

Three years ago, there was a patient who was told by a rheumatologist that nothing more could be done for her. She would have to spend the rest of her life in bed. She was severely crippled with rheumatoid arthritis and attempted suicide. However, her practitioner had heard about the possibilities of surgery and we have had her for the last two and a half years. In that time she has had a synovectomy of the left elbow, an arthrodesis of the left wrist, a synovectomy of both knees, a total hip replacement, a bilateral forefoot arthroplasty and a left triple arthrodesis. She is now completely mobile and sufficiently well to make an unaccompanied visit to her son in Venezuela.

Discussion

Question: Do psychological factors play a part in rheumatoid arthritis?

Professor Bywaters: I would say that the psychological make-up of a person is important in management, in making a prognosis, and in treatment. Despite innumerable studies carried out over the past 50 years, one does not know whether any particular psychological type is liable to get rheumatoid arthritis.

Dr Hill: The patient who has rheumatoid arthritis and goes for a holiday by the seaside nearly always improves; therefore I think relaxation certainly helps.

Dr Knox (*Edinburgh*)*:* It is significant that much of today's proceedings have been taken up with polyarthritis and the more serious and crippling type of arthritis and rheumatism. This is right and proper, because these conditions are the essence of rheumatology, but to be really helpful to us as 'doctors of first contact', we should view all this in perspective, remembering that non-articular rheumatism is also of the essence of rheumatology. The viewpoint depends on the position of the observer; the consultant rheumatologist sees a spectrum of conditions filtered by the general practitioner; and the resulting pattern is important but it is different in nature and in degree from what we see.

Nor is the pattern elicited by the epidemiologist necessarily the same as that which we see;

when he enquires into the community pattern he examines a cross-section of the population rather than makes a study in depth. The people he encounters are not motivated in the same way as are our patients. For example, they are not clamouring for certificates and they are not looking for a sympathetic solution to some crisis in their lives; Professor Bywaters has already indicated some of this from material collected jointly by the Royal College of General Practitioners and the Registrar General, some 13 years ago, but Welford in 1962 highlighted the shortcomings in his analysis of figures from another study. The South-east Scotland Faculty of the Royal College of General Practitioners, in conjunction with the Arthritis and Rheumatism Council Industrial Survey Unit, have attempted to elucidate the pattern of rheumatic disease in nine general practices in Fife. In summary, these broadly confirmed the findings of the larger earlier study. We first noticed that the rate of complaints increased with age; in men the peak was 45 to 65, but in women this continued to rise thereafter, and our interpretation of this phenomenon was that men require certificates up to but seldom beyond the retiring age of 65, whereas in elderly women there is a well-known increase in incidence of osteoarthrosis. Our second conclusion was that the commonest complaints were in relation to lumbar, neck and limb girdle syndromes and the combined complaint rate was almost three times as great as the rate for the peripheral arthritides.

Most practices recorded a relatively high complaint rate for upper back and shoulder girdle pains among women in the 25 to 40 age range, and most of this was labelled by some of the doctors as interscapular fibrositis. The painful condition tended to be evanescent, lasting only ten days to a fortnight, and of all these patients referred to hospital, this group featured the least. The fourth conclusion was that because of the many uncontrolled and uncontrollable variables in the general practice survey it was not always possible to confirm a suspicion of seasonal incidence in complaint rates. Finally, the lumbar and pelvic girdle complaints were the commonest group in men, particularly in the 45 to 65 age ranges and the two practices reporting the highest complaint rates were both situated in mining areas. This group of complaints gave rise to the highest proportion referred to hospital, next to polyarthritis, though the patients were referred to several different consultants, so that any one hospital's experience was diluted. It has already been indicated that one condition that is ripe for exploration in general-practice research is benign polyarthritis. I would suggest another, the difficult group bedevilled with the semantics of non-articular rheumatism, particularly this curious group in young women with the upper back and shoulder girdle complaints.

I am indebted to Drs Partridge and Duthie of the Arthritis and Rheumatism Council's Survey Unit, without whose co-operation I could not have presented you with these preliminary results from this survey.

Dr B. Taylor (*Tower Hamlets*): What is the likelihood of analgesic nephropathy developing with drugs other than phenacetin when given in high dosage for prolonged periods in chronic rheumatic disorders?

Dr Dudley Hart: There is little evidence of this so far, I think there has been one case reported with paracetamol but considering how much salicylate has been used, and latterly how much paracetamol, there is not much of a case against either. Though several papers have been written about kidney toxicity with salicylates, this is not significantly serious.

Dr Scott: There is no convincing evidence that salicylates alone can cause long-term renal damage in the same way as phenacetin; it is a possibility but no more.

Dr J. Knox (*Edinburgh*): Does Mr Kates feel that the family doctor has a positive contribution to make in the decision whether or not to operate. If so, how does he envisage that such a contribution can be made by the practitioner?

Mr Kates: If the practitioner attends this type of symposium he can learn what can be done; having learnt what can be done from the surgical point of view he is then in a position when he sees his patients to know whether or not something might be done and whether that patient should be referred.

Dr Hill: The person who can help the surgeon is somebody who knows the patient intimately, and that can be the general practitioner, though it can sometimes be the rheumatologist advised by the general practitioner. A flat decision should not be made at first appearance without someone telling the surgeon about the patient's background.

Dr Henry Windsley (*Hammersmith*): A woman, aged 50, with painful and swollen rheuma-

toid arthritis of the hands and ankles was given 5 mg of prednisone daily and improved; symptoms disappeared completely but the hands also improved and there was good painless movement at interphalangeal joints. The dosage was reduced to 2.5 mg and the symptoms recurred after two months. Prednisone was restarted with improvement, followed by remission for two months and then three further remissions over the following year. The patient was then referred to Professor Bywaters, the diagnosis was confirmed and the patient was given a course of gold. Was my treatment initially correct?

Dr Hart: Yes, I should think so, absolutely. The only criticism I would have is that if you are going to reduce the dose of prednisone it is better to switch to 1 mg tablets and reduce by 0.5 mg at a time; reduction from 5 to 2.5 mg is too big a jump.

Chairman: I would agree with that. In general we tend nowadays to use gold before we use steroids, but it often happens that a patient with rheumatoid arthritis is already on steroids. We try and take him off this or at least to lower the dosage and sometimes this can be done with the milder analgesics and anti-inflammatory agents, but sometimes we have to use a more effective though unquestionably a slightly more dangerous agent like gold.

Dr Zoob (*London*): What evidence is there that gout is a life-long disease necessitating life-long therapy. If it is treated early before there is impairment of renal function, would it not be possible to consider cessation of therapy and note the progress of blood uric acid levels?

Dr Scott: I think this is a perfectly fair point, but if you do this, provided the indications for starting treatment in the first place are sufficiently stringent, you tend to find that the uric acid blood level comes up over a period of years and uric acid reaccumulates. If the patient had recurrent gout before, after a period of a few months he will tend to get it again. However, it is perfectly fair to treat for six months and then stop and see what happens.

Chairman: When a patient aged 40 to 45 comes along with gout, you must remember that he has been saving up his uric acid over 30 years or so, and it is really wonderful that we have drugs which can get rid of this excess of say 20 gm of urate in a year or two years. I would use uricosuric drugs earlier than perhaps Dr Scott does.

Dr A. Clein (*Fulham*): Does a persistent 8 mg uric acid level in blood merit treatment if it is causing no symptoms of gout or rheumatoid arthritis and the patient is unaware of the condition?

Chairman: That is a difficult question because 8 mg is certainly just above the normal of 7 mg. This is a debateable point. I wonder how Dr Scott feels about it.

Dr Scott: Enthusiastic house physicians measure uric acid for no reason at all and this sort of thing crops up. In general I think one should not treat an asymptomatic hyperuricaemia but just watch the patient and wait for any evidence of trouble.

Chairman: The first thing to do is to repeat the serum uric acid estimation and make sure that the patient is not taking salicylates at that time; you can sometimes get a little nearer the truth by repeating the estimation and if necessary doing it three times. The other point I would like to add is that it also depends on the patient's youth. Gout or hyperuricaemia in the young almost always needs treatment.

Dr Hurst (*London*): Does Dr Scott ever use steroids in the treatment of severe acute gout, or in chronic gout not responding well to other treatment?

Dr Scott: Steroids will relieve acute gout either by systemic administration or injection into the joint, but the other methods of treating acute gout which I have outlined are so effective that I do not think it is ever necessary to do this. Steroids are weakly uricosuric, but again we possess such powerful uricosuric agents that we can say that steroids have no place in the treatment of gout. When to start to lower the uric acid level in a patient is an individual choice, but the patient must be convinced that it is worth his while taking tablets over a long period; one or two attacks of gout are sometimes sufficient to convince the patient of this, but this is an individual matter.

Dr Dudley Hart: Is it not generally true that if patients find a treatment is helping them they

will carry on with it, but if it does not seem to be of any use they stop it. In one survey I think only one in ten was still on the drug two years later.

Chairman: Such a patient either did not understand the doctor or the doctor did not explain sufficiently to the patient. One of our most useful rôles is to explain to the patient in terms the patient can understand, what his illness is due to, and how we can treat it, and sometimes how we cannot treat it really effectively.

Question: Have you any idea how many of your patients prefer their own line of treatment. Could Dr Dudley Hart say whether certain patients feel sure that one thing is better than another? Is this a well-known problem?

Dr Dudley Hart: I think most patients have got prejudices about drugs and I accept that, because they are so much more prone to develop side effects. Unless it is a very silly prejudice I accept it, for there is quite a big range of things to use. There are individual variations in reaction to different drugs, so I usually try and go along with the patient.

Dr Bajer (*Hampstead*): Should a general practitioner refer a patient to a consultant for full investigation before giving steroids when other treatment fails?

Dr Hill: I would not try to lay down any rule about this. If the practitioner is confident about his diagnosis and has invoked any serological tests and radiography that he thinks desirable, and if he is aware of the dangers of steroids and the side effects, then I think he should handle them but I would hope that he had been to this meeting today and heard what Dr Hart has said about limitations of dosage. I hope he will not lightheartedly go beyond those limits. The only other thing I would say is that if his diagnosis is early rheumatoid arthritis and the serological tests are negative, I would also hope that he holds back from steroids because many of these patients turn out either to have benign rheumatoid arthritis or benign polyarthritis in which steroid treatment would not be justified.

Dr Cash: After seeing the extraordinary pictures from Mr Kates I wonder whether the treatment of arthritis should not be almost entirely surgical?

Mr Kates: The answer is 'No'. For the simple reason that this is a generalized medical disease, surgeons are just one aid to the physicians in treating this disease. Surgery is new and these patients have to be watched for five to ten years to see whether in fact we are doing the good we say, or whether they will later have bad effects from these operations. This we do not know.

Dr Cash: Any hopelessly crippled patient would surely be pleased to accept surgery. Take the patient with a peptic ulcer and pyloric obstruction which there is no question of treating medically. Is it not the same with a severe case of rheumatoid arthritis? Should not surgery be the obvious treatment?

Mr Kates: I think every patient must be considered individually, and a joint decision should be made on what is the best thing to do for that patient. Perhaps I was a bit reserved, but we have to take a long-term view of this to see what happens.

Question: This seems to me to bring out the psychological side that we mentioned earlier. Why do you want to treat these patients with kid gloves?

Dr Brackenbridge (*Boston*): What would Mr Kates regard as a failure in synovectomy?

Mr Kates: I recently spent a whole week in looking at results of extensor synovectomies in my unit, and I can say that out of those 40 cases which I had done myself over a five-year period I only saw one recurrence in the terminal part of the extensor carpi ulnaris. But there have been three cases in my unit which have recurred, and I think this is entirely due to inadequate surgery. The surgeon has not been radical enough. We need centres established in England if we are to know what the recurrence rate is.

Dr W. M. Brent (*London*): How useful are intra-articular injections of hydrocortisone in early cases of rheumatoid arthritis; could the Hypo-spray be recommended for the latter condition?

Chairman: I think that with a needle one is a lot surer of getting into the right area; everybody uses local injections but we use them sparingly.

Dr Kay (*North London*): Is there anything special in the treatment of gout precipitated by diuretics?

Dr Scott: It is true that stopping the diuretic is one way of managing acute gouty episodes but if it is particularly necessary to continue that particular diuretic for any reason, the ordinary uricosuric drugs or allopurinol can be used to lower the uric acid level and they will do so even in the face of the diuretic.

Dr Solomons (*London*): How long can one continue with 15 tablets of aspirin a day? Is it a fact that blood can be detected in faeces after small doses of aspirin?

Dr Hart: Continue for as long as the clinical condition is acute and warrants it. As regards the second part of the question, this is common (in about 70 per cent of patients) but it does not seem to matter very much in the average case.