real assessment of hyaline cartilage structural changes and synovial inflammation.

SAT0187 USE OF BONE SCINTIGRAPHY FOR INFLAMMATORY POLYARTHRITIS IN A TEACHING HOSPITAL RHEUMATOLOGY DEPARTMENT

¹S Siebert, ²J Rees, ¹SM Jones. ¹Rheumatology Department; ²Radiology Department, University Hospital of Wales, Cardiff, UK

10.1136/annrheumdis-2001.685

Background Bone scintigraphy using ^{99m}Tc methylene diphosphonate (^{99m}Tc MDP) has been shown to be sensitive in detecting subclinical synovitis¹ but lacks specificity for the aetiology of the articular disease. ^{99m}Tc MDP scans may therefore have a role to play in identifying inflammatory polyarthritis (IP) in selected patients, although it is recognised that they cannot accurately differentiate between different degrees of activity in rheumatoid arthritis.²

Objectives To assess the value of ^{99m}Tc MDP scans in inflammatory polyarthritis.

Methods All requests for bone scans for IP by the rheumatology department at the University Hospital of Wales over a 2¹/₂ year period were retrospectively assessed. The indications for the bone scan and the results were recorded. Degenerative changes on bone scan, confirmed on plain xrays, were considered negative for IP.

Results 94 bone scans were performed in total, of which 68 scans were done looking for possible IP. Of these, 17 (25%) confirmed a pattern of uptake consistent with IP, 6 (9%) were equivocal (possible IP) and 45 (66%) revealed no evidence of IP. 1 patient with a negative ^{99m}Tc MDP scan subsequently developed psoriatic arthritis with erosions on plain films. In the subgroup of 45 patients with high ESR values, 9 (20%) bone scans suggested an IP, 6 (13%) were equivocal and 30 (67%) were negative. ^{99m}Tc MDP scans were requested regarding activity of arthritis in 7 patients with known rheumatoid arthritis, of which none were helpful in terms of altering management. 7 patients with seronegative arthritis underwent bone scintigraphy looking for evidence of peripheral joint involvement, which was demonstrated in 3 (43%) patients.

Conclusion These results suggest that ^{99m}Tc MDP bone scans may be helpful in patients with normal clinical examination if there is a pattern of uptake suggestive of IP. Negative bone scans can also be helpful in patients with polyarthralgia and elevated inflammatory parameters on blood tests, although it should be stressed that the diagnosis of rheumatoid arthritis remains a clinical one. It is not possible to comment on the degree of activity of arthritis on ^{99m}Tc MDP scans, and these should therefore not be requested for this.

REFERENCES

- 1 Shearman J, Esdaille J, Hawkins D, Rosenthal L. *Arthritis Rheum.* 1982;**25**:83–6
- 2 De Bois MHW, Arndt JW, Van der Velde EA, Pauwels EKJ, Bredevelde FC. *Br J Rheumatol.* 1994;**33**:67–73

SAT0188 CHRONIC PLANTAR FASCIITIS: EVALUATION BY ULTRASOUND AND MRI. TREATMENT WITH ULTRASOUND GUIDED INJECTION

¹R Ghazlan, ¹M Dupuis, ¹C Lecarpentier, ²M Delain. ¹Rheumatology Service; ²Radiology Service, Hôpital Européen de Paris La Roseraie, Aubervilliers, France

10.1136/annrheumdis-2001.686

Background Chronic plantar fasciitis is not very known and the diagnosis is frequently missed.

Trends for the diagnosis have been performed with the new methods of imaging.

Objectives Determine the abnormal features of the chronic plantar fasciitis and find an efficient and accurate method of treatment.

Methods 12 patients with chronic plantar fasciitis have been referred to us: men 7, women 5; mean age 55 years; mean duration of the disease 10 months.

Ultrasound has been performed in 5 cases and MRI in 7 cases.

Results Imaging showed increased thickness, reduced echogenicity of the plantar fasciitis and/or inflammatory changes.

Ultrasound guided injection of steroids of the enlarged, hypo-echoic plantar fascia, has been performed in 7 patients who had failed to conservative treatment.

Conclusion The procedure resulted in complete relief of symptoms in 6 of 7 patients.

SAT0189 CLINICAL UTILITY OF DIAGNOSTIC TESTS FOR RHEUMATOID FACTOR

¹TM Madland, ²E Ulvestad, ²A Kaneström, ¹E Thomassen, ¹HJ Haga. ¹Department of Rheumatology; ²Department of Microbiology and Immunology, Haukeland University Hospital, Bergen, Norway

10.1136/annrheumdis-2001.687

Background

Objectives To investigate and compare the accuracy and usefulness of diagnostic tests for rheumatoid factor (RF).

Methods In a cross-sectional study sera derived from patients admitted to the Department of Rheumatology were tested for presence of RF using both nephelometry and the Waaler test. Diagnostic sensitivity and predictive values of the tests were calculated and compared. The accuracy of tests was compared using receiver-operating characteristics (ROC) methodology.

Results Good agreement was found between the tests (kappa = 0.7). At cut-off 19 IU/mL nephelometry showed highest sensitivity (82.4%) and specificity (95.9%) for rheumatoid arthritis (RA). In comparison, the Waaler test had a sensitivity of 60.3% and specificity of 95.9% at cut-off titer 128. The tests showed nearly equal performance characteristics when predicting primary Sjögren's syndrome (SS).

Conclusion Although both tests exhibit good performance characteristics, nephelometry has a higher accuracy when predicting RA. The common practice of using both tests for detection of RF is not recommended.