AB1219

CONTRIBUTION OF MRI TO CERVICAL INVOLVEMENT IN RHEUMATOID ARTHRITIS: PROSPECTIVE STUDY OF 30 CASES

S. reiki1, K. Zouaoui2, S. bousaid1, H. sehli1, E. cheour1, M. elleuch1.
1rheumatology, la rabta hospital, 2rheumatology, charles nicolle hospital, tunis, tunisia, tunisia

Background: Cervical spine involvement is common during RA and is characterised by its potential severity.

Objectives: To determine the prevalence of cervical involvement in RA, to clarify the contribution of MRI to diagnosis and to identify predictive factors for cervical rheumatoid involvement.

Methods: Our study included 30 RA patients with a duration of more than 2 years.

Results: 16 patients (53%) were assessed on the two imaging methods (standard radiographs in 37% and MRI in 33%), of which 2 cases (7%) were asymptomatic. This cervical involvement was dominated by the C1-C2 cuneiforms with intervertebral disc degeneration in 50% of cases and AAS. Of the AAS, aAAS was the most frequent with a prevalence of 23%, followed by the PAAS found in 10% of the cases, the vAAS present in 7% of cases and the IAAS and the rAAS objectivated in 3% each. The AS was found in 3 cases (10%), odontoid erosion in 11 cases (37%), C1-C2 arthritis in 5 cases (16%) and inflammatory spondylodiscitis in 6 cases (20%). MRI resulted in a better study of the C1-C2 cuneiforms and odontoid erosions as well as the evaluation of the impact of rheumatoid lesions on the neural axis; a medullary imprint was noted in 4 cases (13%). Several factors were associated with cervical rheumatoid involvement: the presence of coccobacchial neuralgia or bulbomediullar signs, duration of PR >5 years, HAG score >1.1 and positive RF. The search for factors associated with AAS has revealed the duration of the disease, DAS 28 ≥3.2 and the presence of a biological inflammatory syndrome.

Conclusions: Cervical involvement accompanies the active and destructive forms of RA. It can be asymptomatic, it is the interest to seek it in a systematic way in RA. The standard radiography with dynamic views is to be realised first-line. The MRI must be indicated in order to make an early diagnosis, to carry out an accurate lesional assessment and to guide the therapeutic decision.

Disclosure of Interest: None declared


AB1220

STUDY OF THE RELATIONSHIP BETWEEN TOE DEFORMITIES IN THE FOREFOOT REGION AND THE FLEXOR TENDONS IN RHEUMATOID ARTHRITIS USING 3D VOLUME RENDERING

1Department of Orthopedic Surgery, AKITA CITY HOSPITAL, Akita; 2Department of Orthopedic Surgery, Hiraka General Hospital, Yokote; 3Department of Orthopedic Surgery, Noshiro Kousei Medical Center, Noshiro; 4Department of Orthopedic Surgery, Kita Akita Municipal Hospital, Kita Akita; 5Department of Orthopedic Surgery, Akita University Graduate School of Medicine, Akita, Japan

Background: Multi-slice computed tomography (CT) is frequently used to evaluate the morphology, arrangement, and other characteristics of bone. Three-dimensional volume rendering (3D-VR) has made it possible to visualize tendons and other structures by arbitrarily changing CT values. In deformities of the forefoot region in rheumatoid arthritis (RA), dislocation of the metatarsophalangeal (MTP) joints results in the formation of painful calluses that require surgery; however, the toes can sometimes be displaced inwards or outwards by this dislocation. MTP joint dislocation also causes the flexor tendons to dislocate from their original positions, although the relationship with toe displacement is unclear.

Objectives: We therefore used 3D-VR to examine the relationship between the flexor tendons and toe displacement in the dislocated toes of RA patients.

Methods: Thirty-one feet (10 right and 21 left) of 24 patients (5 men and 19 women) were examined. The Tsuibo classification was used to classify MTP joint dislocation into subluxation (Grade 2) or dislocation (Grade 3). CT images taken with no load applied to the toes were used for preoperative evaluation. The mean age of the patients at the time of imaging was 59.0 (36–76) years. A Fujifilm volume analyser (SYNAPSE VINCENT) was used for 3D-VR reconstruction and CT values were adjusted to visualise the flexor tendons and examine their relationship with the heads of the metatarsal bones. When the flexor tendons were displaced inwards or outwards from the base of the metatarsal bone head, this was classified as flexor tendon dislocation. Toe displacement was identified when the proximal phalanx was displaced inwards or outwards from the extended line of the metatarsal axis.

Results: MTP joint dislocation was seen in 80 toes (63 cases of dislocation and 17 cases of subluxation). The flexor tendons were displaced in 27 s toes (15 inward and 12 outward), 27 third toes (21 inward and 6 outward) and 16 fourth toes (15 inwards and 1 outward). Of the cases of MTP joint dislocation, toe displacement was seen in 12 s toes (1 inward and 11 outward), 12 third toes (10 inward and 2 outward) and 2 fourth toes (1 inward and 1 outward). The flexor tendons were dislocated towards the displaced toes in all cases. No flexor tendon dislocation was seen in any of the cases of subluxation.

Conclusions: RA is often accompanied by hallux valgus and toe displacement is affected by retraction of the first toe. The results of this study demonstrate that the toes are displaced inwards in some cases and can be displaced independently of the influence of the first toe. All the toes were displaced towards the dislocated flexor tendons and MTP arthritis had resulted in loosening of the joint capsule and ligaments and dislocation of the flexor tendons, which was likely to cause displacement.

Disclosure of Interest: None declared


AB1221

THE ASSOCIATION BETWEEN SYNOVITIS IN THE FOOT ON JOINT ULTRASONOGRAPHY AND CLINICAL PARAMETERS IN PATIENTS WITH RHEUMATOID ARTHRITIS

1Department of Orthopedic Surgery, AKITA CITY HOSPITAL, Akita; 2Department of Orthopedic Surgery, Hiraka General Hospital, Yokote; 3Department of Orthopedic Surgery, Noshiro Kousei Medical Center, Noshiro; 4Department of Orthopedic Surgery, Kita Akita Municipal Hospital, Kita Akita; 5Department of Orthopedic Surgery, Akita University Graduate School of Medicine, Akita, Japan

Background: Treatment of rheumatoid arthritis (RA) has improved dramatically with the widespread use of biological disease-modifying antirheumatic drugs. In this context, the number of RA patients who undergo orthopaedic surgery is reportedly decreasing. However, the number of RA patients who undergo foot surgery is increasing. Joint ultrasonography has been used for early diagnosis and