Summary and conclusion

Rheumatoid arthritis is a chronic systemic disease, manifested primarily by inflammatory arthritis of the peripheral joint especially those of the hand and feet, the shoulder joint become involved later than the peripheral joint, the shoulder joint is affected in at least two third of the patient (Lehtinen, 2000).

Us examination is non invasive, painless nature, high patient acceptance, recording image on video-tape during the examination and because of its lwo coast and because it can performed as an extension of physical examination, sonography seems to be promising diagnostic tool for uses by rheumatologist (Manger, 1995).

Us examination of the shoulder has the same sensitivity and specificity as MRI in assessment of rheumatoid shoulder, it is effective in assessment of superficial erosions, tendon and muscle lesion and bursitis, it has also been shown to be accurate for detecting intra-articular fluid, synovitis and can be used as guide in performing peri-articular and intra-articular fluid aspiration ,infiltration and biopsies, making procedures more accurate than when carried out blind (Naredo, 2002).

This study designed to evaluated the ultrasonographic pattern of shoulder involvement in RA by using US of high frequency 7.5 MHz linear array transducer.

20 Rheumatoid patients. Diagnosed according to the criteria of American College Association, all member are submitted to ultrasonographic examination of the shoulder, the results of investigation demonstrate that although there is no agreed-upon system for evaluating for grading ultrasound feature of shoulder involvement in Rheumatoid arthritis, our finding provide important evidence of the value of ultrasonography in detection of the pathological signs, the most common

common lesions were detected are biceps tendinitis, subacromial subdeltoid bursitis, joint effusion bone erosions and cysts, so ultrasonography proved to be extremely valuable in the diagnosis of RA. In conclusion, our results show that ultrsonography using 7.5 MH_2 linear array transducer accurately detects should joint abnormalities in patients with RA. The appropriate indication for ultrasound examination and its influence on the clinical approach, disease monitoring and coasts of care of patient with RA cannot be established by the present study, however ultrasonography should be used wherever possible to improve diagnosis and treatment of Rheumatoid shoulder.

Now new generation of high frequency high resolution real time muscloskeletal US can detect synovitis in clinically unaffected joint, this prove the relative insensitivity of routine clinical examination in identifying the inflammed joint, the observation that subclinical synovitis, may be relatively common in both early and established inflammatory arthritis. Challenges current classification of polyarthritis, oligo arthritis and remission, as well as disease activity. However, it is too soon to conclude that widely accepted clinical categories should be reclassified or validated criteria should be refined ***(Bresnihan and Other, 2004)***.