

### SUMMARY AND CONCLUSION

The aim of this work was to study and compare the radiological changes in the hand and wrist joints in both the seropositive and seronegative rheumatoid arthritis patients.

This study included 50 patients suffering from classical or definite rheumatoid arthritis according to the American Rheumatism Association criteria for rheumatoid arthritis (Ropes et al., 1959).

According to their seropositivity using latex fixation test, the 50 patients were divided into 2 groups, a seropositive group and a seronegative group. Each group included 25 patients.

All patients were subjected to full history taking, complete clinical examination and to the following laboratory investigations:

- (1) Full blood picture.
- (2) Haemoglobin concentration.
- (3) Erythrocyte sedimentation rate.
- (4) Latex fixation test for rheumatoid factor.

Radiographs of both hands and wrists of all patients were taken in 2 views: postero-anterior view and Norgaard's (reversed oblique) view.

Each of the wrist, mid-carpal, metacarpophalangeal proximal interphalangeal and distal interphalangeal joints of each hand in both groups was classified according to Steinbroker et al. (1949) into 4 radiological grades.

The mean number of erosions in each joint in both groups was calculated.

By comparing the radiological involvement of the wrist and hand in the 2 groups we can conclude that:

- \* The mean radiological grading and the mean number of erosions in metacarpophalangeal and proximal interphalangeal joints in seropositive groups were significantly higher than those of the seronegative group. While the mean number of erosions in the mid-carpal joints of the seronegative group was significantly higher than that of the seropositive group.
- \* The frequency of erosions in hand and wrist joints of our seropositive patients is in the following decreasing order: Metacarpophalangeal joints, proximal interphalangeal joints, mid-carpal joints, wrists then distal interphalangeal joints.
- \* The frequency of erosions in hand and wrist joints of our seronegative patients is in the following decreasing order: Mid-carpal joints, metacarpophalangeal joints, proximal interphalangeal joints, wrists, then

distal interphalangeal joints.

- \* The most affected joint by erosions in the seropositive group is the metacarpophalangeal joint while in the seronegative group it is the mid-carpal joints.
- \* The least joint affected by erosion in both groups is the distal interphalangeal joint.
- \* There is no significant difference between radiological involvement in the right and left hands in either groups.
- \* Different forms of hand deformities occur more frequently in the seropositive patients than in the seronegative patients.