

SUMMARY AND CONCLUSIONS

This study was carried on 30 patients attending the out-patient clinic of the Rheumatology and Rehabilitation Department of Benha University Hospitals. They were classified into two groups :

Group A :

Consisted of 15 patients with rheumatoid arthritis diagnosed according to the American Rheumatism Association Criteria. All the patients presented with knee effusion. They were 10 females (66.7%) and 5 males (33.3%), their ages ranged between 32 and 60 years, with a mean of 43.4 ± 3.55 years.

Group B :

Consisted of 15 patients with osteoarthritis of the knee diagnosed according to the clinical features and supported by typical radiological changes. All the patients had synovial effusion. They were 8 females (53.3%) and 7 males (46.7%), their ages ranged between 41 and 61 years, with a mean of 52.06 ± 2.79 years.

- * All the patients were subjected to full history taking and complete clinical examination.
- * Blood and synovial fluid samples for every patient were obtained in the same day for determination of :
 - E.S.R.
 - Complete blood picture

- Rh. factor.
- Plasma and synovial fluid fibronectin concentrations using radial immunodiffusion technique.

The results of the laboratory investigation of our patients were as follow :

- * The mean concentration of fibronectin in the synovial fluid of R.A. patients was $(39.9 \pm 3.17 \text{ mg/dl})$ and showed a highly significant elevation ($P < 0.001$) when compared to the mean plasma fibronectin concentration of the same patients which was $(26.5 \pm 2.75 \text{ mg/dl})$.

- * The mean concentration of fibronectin in the synovial fluid of O.A. patients was $(30.73 \pm 3.08 \text{ mg/dl})$ and showed a significant elevation ($P < 0.05$) when compared to the mean plasma fibronectin concentration of the same patients which was $(25.4 \pm 2.39 \text{ mg/dl})$.

- * The mean concentration of fibronectin in the plasma of R.A. patients showed insignificant differences ($P > 0.05$) when compared to the mean concentration of fibronectin in the plasma of patients with O.A.

- * The mean concentration of fibronectin in the synovial fluid of R.A. patients showed a highly significant elevation ($P < 0.001$) when compared to the mean concentration of fibronectin in the synovial fluid of patients with O.A.

* The plasma and the synovial fluid fibronectin concentrations in R.A. patients showed insignificant correlation ($P > 0.05$) with any of the clinical or laboratory parameters.

* The plasma fibronectin concentrations in R.A. showed a highly significant correlation ($r = 0.9$) ($P < 0.001$) with the age of the patients.

* The plasma and the synovial fluid fibronectin concentrations in O.A. patients showed insignificant correlation ($P > 0.05$) with any of the clinical or laboratory parameters.

- From these results we concluded that :

* In rheumatoid arthritis and osteoarthritis there is elevation of fibronectin concentration in the synovial fluid above the plasma level.

* Also, because the concentrations of either plasma or synovial fluid fibronectin in R.A. were insignificantly correlated with the inflammatory indices, so they can not be used as indicators of disease activity.