SUMMARY AND CONCLUSION

We studied in this work the non specific inflammatory response induced by 3 types of IUCDs namely; Lippes loop, Tcu 200 and Tcu 380A. These responses included:

1- Erythrocyte sedimentation rate (E.S.R.).

2- C - reactive protein (C.R.P.).

3- Seromucoid.

(1) The study included 60, non smoking, non lactating women, with no past history of chronic illness or systemic diseases, or local contraindication for IUCD application. Women were divided into 3 equal groups, each made of 20. In the first group we inserted a Lippes loop, in the second a Tcu 200 and in the third a Tcu 380A.

(3) Venous blood samples were collected from all women before, 24 hours and 4 weeks after application of IUCDs. Blood samples were analysed for the levels of E.S.R, C.R.P and seromucoid.

Our results showed that:

1- There was no significant changes in the erythrocyte sedimentation rate, 24 hours and 4 weeks after application of the 3 types of IUCDs, compared to pre-insertion levels ($P > 0.05$).

2- Mean serum C.R.P. showed a statistically significant increase, 24 hours after application of the 3 types of IUCDs, compared to pre-insertion levels. These changes became insignificant 4 weeks after application.

3- Mean serum C.R.P. was significantly more after Tcu 200 and Tcu 380A IUCDs than after Lippes loops 24 hours after application ($P < 0.002$ and $P < 0.001$ respectively).

4- Twenty four hours after insertion, users of Tcu 380A showed significant increase in serum C.R.P. than users of Tcu 200 ($P < 0.01$).

5- Serum seromuciod showed no significant changes 24 hours and 4 weeks after IUCD application with either, Tcu 200 or Tcu 380A ($P > 0.05$).

6- Serum seromucoid showed a significant increase 24 hours after application of Lippes loop ($P < 0.02$), but the changes became insignificant 4 weeks after application ($P > 0.05$).

CONCLUSIONS

Application of Lippes loop, Tcu 200 or Tcu 380A did not affect systemic erythrocyte sedimentation rate or serum seromucoid,except with Lippes loop,where there was slightly higher levels of serum seromucoid 24 hours after application. This may be due to mechanical trauma induced by its applicator which is larger than that of the other two types.

ESR appears to be an important and easy dignostic laboratory technique which can be used for early detection of the occurence of PID as a complication of IUCD.

Application of IUCDs affect systemic serum C-reactive protein that increased more in copper containing IUCD than in Lippes loop. This may be due to the copper ions. The increase was more in Tcu 380A than in Tcu 200,which may indicate that the biochemical trauma induced by Tcu 380A was much more due to its higher copper content. This is compatible with the pain and bleeding that TCu 380A is known to induce.