SUMMARY

Chapter IX

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Blood samples were collected from 50 women for the study of serum calcium, magnesium, zinc, copper and manganese; before an injection of DMPA in a dose of 150 mg, and 48 hours, one week, 2 weeks, one month and 3 months after injection. The "atomic absorption spectrophotometery" method was used to determine the serum minerals levels.

1- Serum calcium:

Mean serum calcium level showed a statistically significant decrease 48 hours after DMPA injection. Afterwards, one week and 2 weeks after injection, mean serum calcium level was restored to its normal pre-injection level. One month after injection, mean serum calcium level showed a significant increase. Three months after injection, mean serum calcium level returned to pre-injection level again. With both the decrease and increase that occurred, the range levels were within the normal range of serum calcium.

2- Serum magnesium:

There was no significant change in mean serum magnesium levels, throughout the study period.

3- Serum zinc:

Mean serum zinc levels showed a statistically significant decrease 48 hours, one week, 2 weeks, one month and 3 months after DMPA injection. Once the decrease occurred 48 hours after the injection, no further decrease resulted. However, with this decrease, range serum zinc level was within the normal range of serum zinc.

4- Serum copper:

Mean serum copper levels showed no significant change at all after DMPA injection, throughout the study period.

5- Serum manganese:

Mean serum manganese showed a statistically significant decrease 48 hours, one week and 2 weeks after DMPA injection. After that, mean level

returned to its pre-injection level and did not show any significant change one month and 3 months after injection. However, with the decrease, range serum manganese level was within the normal range of serum manganese.