SUMMARY
Summary and conclusions

This study was conducted on adult male albino rats with aim of finding the effect of electromagnetic field on the pituitary-gonadal axis and spermatogenesis. The animals were classified into 4 groups.

**GROUP (1):** The animals were immobilized without exposure to EMF and taken as a control.

**GROUP (2):** The animals were immobilized after being subjected to an EMF of 2 Gauss for 24 hours per day for a period of 7 days.

**GROUP (3):** The animals were immobilized after being subjected to an EMF of 2 Gauss for 24 hours per day for a period of 15 days.

**GROUP (4):** The animals were immobilized after being subjected to an EMF of 2 Gauss for 24 hours per day for a period of 30 days.

All the rats of control group and the other three groups at the end of this exposure were subjected to

**HORMONAL ASSAY**

Blood samples were taken for estimation of:
1. FSH
2. LH
3. Testosterone
4. Prolactin
5. Cortisol
HISTOPATHOLOGICAL EXAMINATION

Specimens taken from the testes were examined microscopically to ask

Is there any changes occurred in exposed groups from control group the.

Data collected from this experimental study the following showing results of this work.

FSH level show significant increase than control, in group rats were exposed to FMF for one week, by continuos exposure for 4 weeks, FSH significant decrease than group exposed for 1 week.

LH level showed another pattern, it dose not increase after one week exposure but show significant increase after 4 weeks of exposure than groups exposed for I week and 2 weeks.

Testosterone hormone showed no significant change in all studied groups.

Prolactin level show preliminary significant increase than control which goes with the increase in FSH, and then showed significant decrease in the group exposed for 2 weeks, and then another increase than the control group in 4 weeks exposed group.

Cortisol show significant increase in the 2 and 4 weeks exposed groups compared with control.

The histopathological examination of the specimens taken from the testes showed no pathological changes from normal control group.
We conclude the debate between potential hazards of EMF on pituitary-gonadal axis and spermatogenesis will continue until the mechanism of action has been clarified.

Lastly we may recommend further studying this work by exposing the animals for higher intensity of EMF for longer duration. Also we may recommend to take blood samples from high risk individuals exposed to EMF for hormonal assay.