SUMMARY

Hypertensive disorders is a complication of pregnancy which is considered to be both common and potentially dangerous for the mother and the fetus. This work was done for detection of abnormal fetal growth pattern in hypertensive disorders.

Ultrasonography provides a direct method of measuring fetal size and weight, it also provides a relatively simple, valuable method for assessing fetal growth and prenatal size.

The present study was conducted on 30 patients with pregnancies at risk of IUGR from hypertensive disorders. All studied cases were subjected to sonographic biometry (BPD, HC, AC, FL, HC/AC ratio), EFW, biophysical profile, AFI andDoppler study of the umblical artery velocimetry (S/D ratio).

The results of this work were as following :

- The growth of (BPD, HC) shows non significant decrease in hypertensive than the standard value.
- The growth of (AC) show significant decrease in hypertensive (except for chronic type where it is non significant) than the standard value.
- The growth of (FL) show non significant decrease in hypertensive than the standard value.
- The HC/AC in hypertensive was non significantly higher than the standard value.
- The EFW is significantly low in hypertensive than the standard value except for chronic type where it is non significantly lower.

- The AFI was significantly lower in hypertensive than the standard value,except in chronic type where it is within normal.
- Morphologic changes of placenta including : accelerated maturation (premature aging), placental degeneration and abruption are observed in pregnancy complicated by hypertension.
- Doppler studies is performed to assess umbilical circulation as hypertension is expected to be associated with abnormality in umbilical artery blood flow. In the present study it show a significant high value than the standard value, except in chronic type where it has a normal value.
- Fetal biophysical profile appears to offer the advantage of grading various degrees of fetal compromise,hence its important role in monitoring pre-eclamptic pregnancies. In the present study it shows a significant lower value than the standard except in chronic type where it is has a normal value.
- There are 2 cases of IUFD at 33 ws and 31 ws.
- There are 3 case of IUGR at 32 ws, 34 ws, and 39 ws.
- Finally chronic hypertensive type have a minimal effect on pregnancy than pregnancy-induced and pregnancy-aggrevated hypertension.

CONCLUSION

Sonography plays an important role in the diagnosis of growth retardation depending on fetal measurements, assessment of amniotic fluid volume, biophysical profile and Doppler waveform indices.

So, all hypertensive pregnant women should be well managed and evaluated ultrasonographically during 3rd trimester for early detection and management of IUGR, guarding against and lessening the perinatal mortality and morbidity.