SUMMARY AND CONCLUSIONS

The objective of this work was to study the pattern of the umbilical artery blood flow in pregnancies complicated by PIH, DM and IUGR.

The ultimate goal was to assess the capability of the Doppler ultrasound as an antepartum surveillance test in the expected management of high risk pregnancy and to detect early fetal compromise.

125 pregnant cases were included in this study, divided into 4 groups:-

a) Pregnancy induced hypertension (25 cases).

b) Diabetes Mellitus (25 cases).

c) Intrauterine growth retardation (25 cases).

d) Control group (50 cases).

Complete history taking, thorough clinical examination and ultrasound fetal assessment were done in all cases.

Continuous Doppler ultrasound examination of umbilical artery was done.

The mean S/D ratio was calculated and RI . The results were classified into 3 groups : normal S/D ratio was less than 3, increased S/D ratio when more than 3 and lastly absent or revesed end diastolic flow.

In PIH cases with abnormal umblical artery flow velocity waveforms showed a significant higher value of mean systolic and diastolic blood pressure. Also, the same cases showed a significant higher values of mean serum uric acid and a significantly lower mean platelet counts.

In diabetic group, Doppler velocimetry findings were abnormal in cases assossiated with vasculopathy.

In IUGR group, abnormal Doppler findings were found in 80% of the cases. So, Doppler ultrasound is useful in diagnosis and prediction of IUGR .

This survey of different mode uses of Doppler scanning to date, illustrates the considerable part it now plays in obesterical monitoring.

Although recording the Doppler signal of umbilical arteries in normal pregnancy may not be thought necessary. It is now recognized out this examination in high risk pregnancies is essential if possible it slould be complememted by examination of the cerebal arteries in cases of suspected intrauterine growth retardation.