# SUMMARY

## Summary

The present work investigated the extent to which V A S test influences the clinical decision after screening with NST in pregnant diabetic patients and whether the V A S test adds information regarding the fetal outcome beyond that provided by NST .

Fifty diabetic and fifty non diabetic women (twenty controlled and thirty uncontrolled) among those attending the outpatient clinic of obstetrics and gynecology at Benha university hospitals participated in this work during the period from October 1991 to May 1993 .

Two hours-Postprandial blood glucose level <120 mg% was the upper limit of blood glucose level control.Blood glucose estimation was done on the same sitting of NST and V A S test for diabetic cases twice weekly starting from 32 weeks until delivery . Fetal outcome was reported as apgar score at 5 minutes.

**The results showed that:**

(1) NST was:

(a) Reactive in 88% of control cases, 75% of controlled diabetics, and 60% of uncontrolled diabetics.

(b) Suspicious in 8% of control cases ,10% of controlled diabetics, and 30% of uncontrolled diabetics.

(c) Nonreactive in 4% of control cases, 15% of controlled diabetics, and 10% of uncontrolled diabetics.

(2) Positive predictive value of abnormal NST was 33.3% of control cases, 40 % of controlled diabetics, and 33.3% of uncontrolled diabetics.

(3) V A S test was :

(a) Normal in 90% of control cases, 75% of controlled diabetics, and 70% of uncontrolled diabetics.

(b) Abnormal in 10% of control cases, 25% of controlled diabetics, and 30% of uncontrolled diabetics.

(4) Positive predictive value of V A S test was 40% of control cases, 20% of controlled diabetics, and 44.4% of uncontrolled diabetics.

(5) Suspicious NST was interpretated as normal after V A S in 50% of control cases, 50% of controlled diabetics, and 66.67% of uncontrolled diabetics.

(6) Non reactive NST was interpretated as normal after V A S in 50% of control cases, 33.3% of controlled diabetics, and 33.3% of uncontrolled diabetics.

(7) Apgar Score < 7 at 5 minutes was detected in 4% of control cases, 10% of controlled diabetics, and 16.7% of uncontrolled diabetics.

(8) No stillbirth or perinatal deaths were reported.

**On the basis of these findings:**

(1) Reactive non stress test (NST) could predicts intrauterine fetal well-being and good fetal outcome as judged by apgar score at 5 min., provided that delivery occurred within 3 days of test performance , no accidental acute events had occurred within these 3 days and no intrapartum complications.

(2) Suspicious non stress test could be considered as compensated fetal distress or as sleeping- induced pattern, and in this case,vibroacoustic stimulation by use of an artificial larynx is required to arouse the fetus.

(3) Non reactive non stress test has a high false rate of fetal distress prediction and so that it could not be based upon alone for diagnosis of fetal distress or timing of delivery in diabetic pregnancy.

(4) Vibroacoustic stimulation eliminates the sleeping rhythm-induced false philological non stress test and therefor, improves the efficacy of non reactive NST in the prediction of fetal compromise but still we can not based upon it as an indication of termination of pregnancy on the sole of fetal compromise which must be furtherly estimated by other methods of antenatal fetal well-being assessment before arrangement for planned delivery.

(5) There is no correlation between hyperglycemia and the non stress test efficacy in diabetic pregnancies .