THE
Journal of Obstetrics & Gynaecology of India

VOLUME XXXV No. 2 APRIL 1985

Editorial

INTENSIVE MONITORING IN FIRST TRIMESTER OF PREGNANCY

Few amongst us will remember the practice and teaching that a patient with early pregnancy was not even subjected to physical examination until she missed two menstrual periods. The attitude has changed tremendously over the last three decades. Nevertheless confirmation and diagnosis of pregnancy with possible addition of Pap smear may be all that the patient is subjected to in the obstetrics evaluation in the first trimester. Any further investigation would only be indicated in presence of complicated pregnancy. This conservative attitude is defended under the term: "Watchful Expectancy" by the physician, but often could be: "Dreadful Uncertainty" for the patient, particularly when the pregnancy is complicated.

The origin of early monitoring dates back to the cases of pregnancy following induced ovulation or the cases of *in vitro*—fertilization with embryo transfer. Such evaluation was essential to exclude abnormal or multiple pregnancies. In addition to these, high-risk pregnancies could similarly be monitored. The diagnostic modalities included use of ß-HCG estimation in urine, and more recently in plasma by Radio-Immune assay, while the Radio-receptor assay can diagnose pregnancy even before the missed period. This is aided by Ultrasonography later.

This experience of monitoring early gestation aided the physician in detecting abnormal pregnancies, like: Early blighted ovum, Molar pregnancy, Multiple gestations, and Ectopic gestation prior to rupture. It is also possible to perform Chorion Biopsy for determination of Sex and Sex-linked heriditory abnormalities.

Clinical Advantages of Early Monitoring

The correct estimation of gestation age which could be quite accurate in the first trimester, would provide useful important information in later pregnancy. By the combination of ß-HCG level determination and Ultrasonography measurement of CRL and BPD, it is possible to predict the accurate gestation age from 25th day of gestation to early third trimester of pregnancy. Compared to this, the clinical estimation by L.M.P. could be erroneous upto 15% in the Western population and even more so in India, where people use four different calenders.

Diagnosis of Blighted ovum in a single or multiple pregnancies by Ultrasonography could pin-point the foetal demise very early, well before its clinical manifestations. Indeed, Threatened and Inevitable Abortions diagnosed only by bimanual palpation could be erroneous as evaluated by Ultrasonography. Many a cases of Missed Abortions diagnosed by Ultrasonography may hardly show any

clinical manifestation. Early detection of Foetal Demise is accepted by the patient much better than the psychological agony of prolonged enforced rest, expensive hormone treatment, and ultimate inevitable loss of conceptus.

Early diagnosis of Multiple Pregnancies may not only be of academic interest at this stage of pregnancy, but will also be of aid in Chorion Biopsy or later, in Amniocentesis. Besides, diagnosis of Multiple Gestation in a patient with adequate number of living children may tilt her mind towards Termination of pregnancy.

Early diagnosis of Molar Pregnancy will allow prompt evacuation under control and prevent complications of advanced non-invasive or invasive trophoblastic neoplasm.

Definite diagnosis of Missed Abortion will prevent waste of time and expenses of conservative uncertain treatment. The same is applicable to the Hormone-induced pseudo-pregnancy.

The diagnosis of Ectopic gestation before its rupture or before the development of clinical manifestations would be possible with combined use of ß-HCG estimation, Ultrasonography and prompt Laparoscopy. Such an early ectopic pregnancy could be treated by conservative surgery without sacrificing the fallopian tube and through the laparoscope alone by a trained laparoscopist.

There would be additional benefits of early diagnosis of Congenital Malformations of genital tract or Pelvic Tumors, which would be easier to be picked up in early pregnancy as compared to late gestation, and may warn the patient and the attendant accordingly.

Diagnosis of Incompetent Internal Os can be possible well before the mid-trimester and warn the obstetrician accordingly for the further follow-up.

While three of the presently available diagnostic aids have been mentioned, more would be included as and when they develop. Such monitoring would involve a team work between the Obstetrician, Sonologist and Hormone and genetic laboratory personnel. To develop expertise and confidence most of the early pregnancies will have to be monitored to get and adequate pick-up rate of abnormal pregnancies. In developed countries, where cost does not matter if the advantages are definitely proved, early pregnancy monitoring has become routine. In developing countries, obstetrician must evaluate the cost-benefit ratio and educate the patients with early pregnancy about the usefulness of early monitoring. When fewer pregnancies are being planned, for a better quality of life, such patients deserve the benefits of comprehensive monitoring throughout the pregnancy.

Dr. V. N. Purandare,
M.D., F.R.C.S. (Edin.)