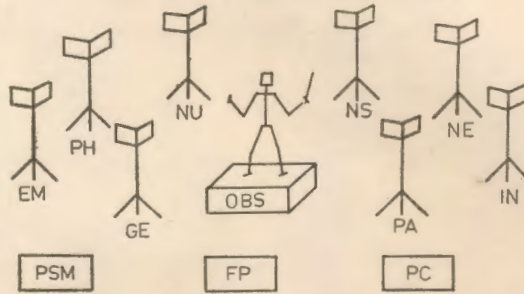


CHANGING TRENDS IN PERINATAL PRACTICES†

by

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With shift in emphasis towards foetal and neonatal well-being from that of maternal health during pregnancy and labour, obstetricians and paediatricians found themselves working together, but more on tandem. Rapid advances in laboratory investigative procedures and growth of modern electronic and sonographic equipment have revolutionised understanding of pathophysiology of human reproduction. In the process, foetal growth, maturation, health, and diseases are being investigated and understood as never before, and, two new specialities, namely, perinatology and neonatology have emerged. Whereas the latter is a distinct off-shoot from paediatrics, it cannot be said that the former is born out of obstetrics. Embryologists, Physiologists, Geneticists, Pathologists, Nutritionists, Obstetricians, Internists, as well as Neonatologists, Perinatal nurse, and Neonatal Surgeons have contributed in the development of this speciality (Fig. 1). Even experts in Preventive and Social Medicine and those in the fields of Public Health, Family Planning and Population Control have lent their hands in supporting the speciality of perinatology. Nevertheless, from a clinical point of view, the obstetrician will play vital



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Fig. 1.

and pivotal role in this new speciality.

In the sphere of perinatal practice, there are various components which are neither static in number nor constant in importance. Factors which influence these components are:

1. Health, education, and socio-cultural background together with economic standards of communities.
2. Health and medical facilities available at a given time and place.
3. Control of or elimination of existing perinatal problems.
4. Newer knowledge and better understanding of foetal and neonatal morphology, functions and responses, with unfolding of fresh challenges.
5. Outside influences like population control, family planning, changing life styles and also political exigencies, which work on people.

A century ago, maternal care revolved around labour and delivery; dystocia with its serious maternal effects was the sole

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concern. During this century, small antenatal and postnatal components were added and very rapidly, in last three decades, a galaxy of satellites have surfaced and several of them (Fig. 2) have

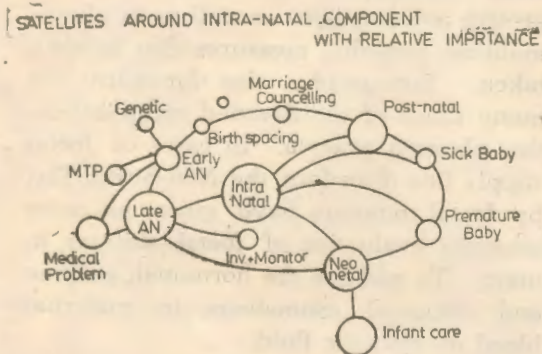


Fig. 2

assumed importance, equal to that of the main the "intrapartum" component. An obstetrician's vista can no longer remain narrowed to conventional prenatal and intrapartum areas. With widening horizon and growing sub-specialities around human reproduction, the obstetrician, must see new light and view different perspectives. Otherwise he will be in danger of being eclipsed.

In spite of the aforesaid, the provocative perinatal concerns in our country are still elementary and of gross magnitude. High perinatal mortality, prematurity, low birth weight babies, early neonatal infections and jaundice are our basic and priority problems. Ordinary clinical and community approach to day-to-day practices will do much good rather than technological skills and gadgets.

Rural Perinatal Practice

With more than 70 per cent of deliveries in India occurring at home, and almost all of them being attended by untrained and uneducated dais, the Government of India

has put in stupendous effort at all States levels in training of dais. Few lacs have received training and this is a laudable achievement towards betterment in rural perinatal practice.

A very heartening change is the increasing number of private obstetric and paediatric practitioners settling in rural areas of our country. The membership of FOGSI is soaring amongst rural doctors, and both these are healthy trends towards better work.

Maternity Care Monitoring

Perinatal outcome is extremely linked in India to maternal health, nutrition, diseases and other environmental factors. Perinatal mortality and morbidity will not reduce unless significant attention is given to mother care. Documentation of every maternity case on appropriate and formal forms is a highly effective and simple method of approach allowing us to assess and later act upon. MCM has been developed and utilised extensively not only by International Agencies but even by India Fertility Research Programme. FIGO and WHO have acclaimed its value and have recommended its wide application. It is tragic that though this simple and inexpensive methodology is at our door step, we have failed to make wide use of it.

Antenatal Practice

Notable among the trends in antenatal practices have been the early examination and assessment of pregnant women. Many current medical disorders are detected and past obstetric history is reviewed with specific reference to current pregnancy. Exact data of delivery is determined and this goes a long way in judging the progress of foetal growth and maturation. Remarkable laboratory tools available at this stage of pregnancy have been

estimation of HCG in urine or blood, sonographic visualisation of foetus and clinical hearing of foetal heart sound by the "Doppler" heart recorder. Amniocentesis and study of foetal cells and blood sampling lead clue to several unsuspected foetal abnormalities, genetic or otherwise.

Antenatal clinics are no longer considered dry drudgery where one records only mechanically blood pressure, looks for albumin in urine and makes a cursory palpation of foetal position in utero. Patients' weight and uterine heights are paid much attention to and co-related at each examination, to period of gestation. Enquiries about foetal movements and activity are made of woman and she is consciously made aware of them. Basic blood tests are routinely and rigidly performed and haemograms and glucose tolerance tests are liberally repeated throughout pregnancy. Special investigations are ordered more frequently. Clinical assessment of cervical status in pregnancy and timely treatment of premature ripening of cervix has prevented many premature labours and deliveries.

Growing tendency to assign risk scores to pregnant women and then to pay greater attention to those with unfavourable scores has paid dividends too. Risk score tables must be present on all good antenatal record sheets.

Administration of Tetanus Toxoid injections during pregnancy as a routine preventive measure has undoubtedly helped in reducing deaths due to this infection in the neonates.

Distinctive provision of antenatal beds especially for cases of (a) premature spontaneous rupture of membranes, (b) Premature effacement and dilatation of cervix, (c) threatened preterm labour, (d) pre-eclampsia and (e) antepartum haemorrhages, is an asset. Admission is

also desirable under other situations during pregnancy. Every hospital in India should have at least 15 per cent of its obstetric beds reserved for antenatal care. Outstanding assistance is available from sonographic evaluation of foetal growth and functions as well as its abnormalities; remedial measures can be then taken. Sonography also forewarns us many times of the dreaded complication, the placenta praevia. In cases of foetal supply line disorders, the Non-Stress Test by foetal monitors have given us more accurate evaluation of foetal distress in utero. To add are the hormonal, enzyme and chemical estimations in maternal blood or amniotic fluid.

Institutional administrators must be made to realise also that they cannot shirk away from their responsibility of making definite investigations available if they mean to improve perinatal results.

Finally, training and utilisation of nursing personnel for antenatal checks is a corollary to widespread network of this service.

Intrapartum Management

The greatest tragedy in our perinatal practice is the large number of emergency and late admissions for delivery as also the referrals for delivery. These admissions not only account for poor perinatal results but cause directly so many maternal tragedies and deaths. The measure of these admissions in a maternity hospital is the measure of community's awareness to MCH, of local government's positive attitude, of hospital administration's involvement and of medical personnel's commitment. It is a matter of shame that the incidences of these vulnerable admissions for delivery are not showing declines in various parts of our country. Unless this is done, no amount of intensive labour

ward monitoring equipment and set up will ever help. The most positive change in intranatal practice is the liberal use of caesarean section at almost all places. Foetal salvage and neonatal outcome will improve with section rates going upto 7 to 10 per cent. It is debatable if section rates beyond this range is really beneficial.

Timely induction of labour and timely acceleration of labour are two other significant advances in labour ward management. It is unfortunate that obstetricians in general are not willing to exploit the benefits of these two modern tools as they should. They prefer to shy away and resort to late caesarean section.

Good labour ward monitoring by simple methods and maintainance of correct and neat labour progress charts have given rise to enlightened approach to active management of labour and allowed timely and accurate interference when needed.

Though much has been written and talked about intensive labour care units, clinical experiences have not shown very outstanding benefits from such units. Advisability of setting up such units in India will need considerable thought.

In fact, more will be gained by upgrading and intensifying services at existing maternity units, including PHCs in terms of round-the-clock trained staff, readily available operating and anaesthetic facilities, and a good stand-by transfusion service.

Neonatal Care

Asphyxia and prematurity are the most dangerous situations in which the newborns find themselves at birth. Not only are these conditions essentially responsible for perinatal mortality and morbidity, but they continue to contribute to the many ills of the infant.

If intubation and positive pressure ven-

tilation have done a lot in saving very severely asphyxiated babies, then ordinary aspiration, oxygen administration and external artificial respiration have served maximum to salvage majority of asphyxiated cases. The most important thing a premature baby needs at birth is maintainance of its body temperature. Immediate incubator care is the right approach, however primitive one's incubator appears.

Assessment of health and maturity of newborn is the next concern. On this will be formulated further line of management. What level care will the neonate require, who will manage the baby is immediate future, and where will the baby be looked after? This assessment is possible and within the competence of the obstetric personnel; the time consumed is not more than few minutes and the advantages are many.

Infections in the newborn begin in its intrauterine life and factors leading to them continue during labour and soon after delivery. Much needs to be appreciated by the obstetric staff on these points. Birth injuries kill many newborns and deaths often labelled as due to prematurity or cyanosis are generally due to birth injury. The more the premature and the growth retardation, the greater is the need for caesarean section, in selected cases rather than vaginal delivery.

To go back to breast feeding and discard top feeds is WHO's appeal today. Breast feeding is not only good for babies health, but also it prevents neonatal infections. Breast feeding brings about an infant-mother bonding.

No jaundice should be dismissed lightly as physiological. Investigative facilities are now readily available even in many semirural areas of our country and one must use them more often. It is suggested

that cord blood sample should be routinely stored for future reference in all cases.

Electrolyte balances in newborn are critical. Prematurity, low birth weight, asphyxia, hypothermia and birth injuries make matters worse. Glucose is the paramount need of the hour in sick newborn.

Congenital malformations causing immediate deaths in newborn are known and those which can be corrected by surgery or other measures should not be missed. The care of the very premature baby of 32 weeks and less or of birth weight of less than 1500 g, requires very special nursery. The management is expensive and though tremendous progress has been made in improving their salvage, priorities do not permit us to have the level IV care for them.

It is imperative that all babies, born alive or dead, should be weighed on birth. Complete information on the birth weight distribution of perinatal population probably offers the most pragmatic approach to assessing its overall health status.

Perinatal Audit and Surveillance

Any evaluative process which explicitly aims to provide information which can lead to improvements in the care available to childbearing women and their families, comprises perinatal audit. It is no doubt a formal process changing and adjusting to the needs and demands of the day. The sources of information for perinatal audit in our country are limited and perhaps patchy. It is hence time that Governments, Municipalities, and bodies like FOGSI and IFRP—India sit together to

frame out programme to collect data continuously and formally.

Surveillance, continuous or periodical, is a useful tool to help audits, and the MCM has already been referred to earlier. Clinicians and clerks have to realise that the basic data they provide is of utmost importance. Periodic feedback information must be supplied to the clinicians to sustain their interest and help them improve their practices.

Continuing Medical Education and Training

Knowledge, thought and practices in medicine are fast changing and there is thus a dire need for continuing medical education of both medical and paramedical staff. Frequent and country-wide CME programmes and seminars should fulfill this need. Technological skills and use of sophisticated equipment have taken over several clinical examinations and evaluations, and to be familiar with them, workshops have to be held in small groups in different parts of the country.

In Conclusion

I have referred to various facets of perinatal problem and have mentioned many accepted trends in perinatal practice and several which need to be implemented in immediate future. I have covered familiar ground and have ventured on newer fields. If I have interested many of you, a purpose is served. If I have enthused several, much will be done. If I have raised hope in some, optimism shall prevail, and finally if I have aroused cynicism in few, God shall help them see clearer light.