The 41st All India Obstetric and Gynaecology Congress 27th December, 1997

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"REPRODUCTIVE HEALTHY CARE THROUGH MODERN TECHNOLOGY"

On this most auspicious day I remember with respect and pay tributes to my devoted great teachers Prof. M. K. Krishna Menon and Prof. Somnath Roy who have been the encouraging force behind my academic knowledge. I am very much indebted to my mentors, Prof. M. Thankom of Calicut, late Prof. Susan George, Prof. Vimala Nair of Trichur, late Prof. Kalyanikutty Amma, Prof. Mary Philips of Kottayam and Prof. Subhadra Nair of Trivandrum, under whose guidance I was groomed as an Obstetrician-Gynaecologist. I always look upon with great regards Prof. A Padma Rao and Prof. N. D. Motashaw who have inspired me a lot in my career. I have been following the footsteps of the elders of our Federation, the past presidents of FOGSI, Prof. V. N. Purandare, Prof. R. D. Pandit, Prof. M. N. Parikh, Prof. S. N. Daftary, Prof. Shirish Sheth, Prof. Vasant B. Patwardhan, Prof. N. N. Roy Chowdhury, Prof. C. S. Dawn, Prof. S. Dasgupta, Prof. Rohit Bhatt, Prof. Kamal Buckshee, Prof. Usha Krishna and Prof. R. P. Soonawala. I have great admiration for the hard work of Dr. Mehroo D. Hansotia, Dr. Sadhana Desai and Dr. B. N. Chakravarty. And finally it was Dr. D. K. Tank and Dr. M. P. Patil, the two strong men, who took to me to the path of this highest office.

I have no words to thank my fellow Gynaecologists who elected me to the highest office of The Federation of Obstetric and Gynecological Societies of India. It is the greatest honour an Indian Gynaecologist can ever dream of, and I accept this great responsibility bestowed on me by you with respect and modesty. I stand in front of you with determination to serve the Federation with your whole hearted support and good will.

Service to an organisation is service to the people, and service to the people in our discipline means dedicated efforts at improvement of reproductive health of our women. ***I request all the members of FOGSI to stand united in our endeavour at promoting health care measures through practical application of the modern technology.*** *In this respect the guidance and support of our elders are strategic in encouraging the younger generation of obstetricians and gynecologists in providing specialised health care services to women of our country.*

Obstetrics and Gynaecology is no more just a speciality in medicine, but is an assembly of innumerable superspecialities, and to name a few they include

perinatology, high risk obstetrics, ultrasonography, infertility, assisted reproduction, genetics, reproductive endocrinology, endoscopy, gynaecological oncology, gynaecological urology, geriatric gynaecology and adolescent gynaecology. The people of our country expect the gynaecologists-obstetricians to assign the responsibility of a perinatologist, reproductive biologists, infertility specialist, reproductive endocrinologist, sonologist, endoscopist, genetist and gynaecological oncologist and urologist. We are also expected to manage the specialised obstetric problems such as medical disroders in pregnancy, hypertensive disorders, intrauterine growth restriction and prematurity. It is not possible for one obstetrician or gynaecologist to master all these superspecialities, and hence we have to adopt a working strategy and a guiding formula that our youngsters can confidently follow. The only way is to encourage our youngsters in specializing in these superspecialities, with each one taking up one speciality.

Our working philosophy should be preventive obstetrics and conservative gynaecology and these objectives must be achieved through application of modern technology. *Preventive obstetrics begins with care of early pregnancy. Antenatal care from the time of missed menstrual period to term, employing the basic investigations and ultrasound, enables prevention or early detection of obstetric complications. Exclusion or early detection of ectopic gestation and other intrauterine pregnancy complications, routine ultrasound study for altered fetal growth, nuchal fold thickness, fetal malformations and fetal compromise could certainly prevent future problems.*

Similarly prevention of PIH employing aspirin prophylaxis or avoidance of development of the fulminant forms of PIH, early detection of maternal glycemia by the glucose screen tests and timely intervention in fetal growth restrictions certainly improve the perinatal salvage. If one could afford to use Doppler many high risk factors are either prevented or detected early and optimally managed. Of course, equally good is fetal biophysical scoring and intrapartum monitoring.

There should at least be one sonographic evaluation in each trimesters of pregnancy, along with the relevant investigations during these visits. *The first visit is for confirming a live intrauterine gestation and determination of gestational age, the second for study of fetal anatomy, determination of fetal age, placental position and nature of cervix, and the third for fetal well being studies and assessment of growth rate. This changed concept at antenatal care will help reducing the number of antenatal visits, prevent or allow early detection and management of complications and thus improve the quality of obstetric service. If the pregnancy takes an uneventful course through all the three sonographic studies at the first, mid and third trimesters, seldom is there a risk of fetal complication or perinatal loss. No doubt that optimal antenatal surveillance practically eliminates an intrapartum fetal risk.*

The competency and skill of the modern obstetrician is assessed not by the conduct of delivery or performance of caesarean sections, but by the smartness exhibited in managing medical disorders complicating pregnancy and the high risk problems. *Hence clear idea of the altered physiology and pathophysiology of various organ systems of the mother, better understanding of fetal biochemistry and sound knowledge of pharmacology are mandatory for a successful obstetrician.*

The obstetrician should not hesitate to liberalise

caesarean sections for high risk pregnancies to improve the perinatal salvage. but should encourage vaginal births for the low risk obstetric subjects in whom spontaneous onset of labour or cervical ripening and elective induction of labour should be in order. It is well conceived that the perinatal salvage is negligible in low risk obstetric subjects which can not be further reduced by liberal approach to caesarean sections.

Conservative gynecology is an art of preserving the reproductive organs while curing the various organ related pathologies. *Hysterectomy with salpingo-oopherectomy has been thought of as panacea for cancer prophylaxis and cure of all gynecological ailments by our teachers. This is because in their days facilities for cancer prevention and early detection were not well developed. The modern gynecologists are functioning under a totally changed scenario. Today we have accumulated a wealth of knowledge on reproductive endocrinology sufficient enough to understand that ovaries should not be unnecessarily sacrificed, and its function cannot be replaced by any pharmacological remedies. The reproductive physiology also teaches us that preservation of uterus is mandatory for optimal endocrine function of the ovary to the natural age of menopause.*

This endocrine strategy can be translated to clinical practice, because today cancer prophylaxis and early detection are quite practicable, thanks to the modern technology in cancer screening programs. This will allow for preservation of uterus and ovaries while eliminating the risk of cancer, and thus premature reproductive ageing is forestalled. While cervical cytology and colposcopy can take care of the uterine cervix, endovaginal sonography could screen endometrial and majority of ovarian disorders. Doppler studies are extremely useful and tumour markers remain the other investigative modality. Thus we come to the point that for fear of cancer one need not remove the ovaries and uterus.

Colour flow mapping and Doppler velocimetry studies provide for a quick and accurate assessment of the malignant potentiality of a tumour and hence will gradually emerge as an important investigative tool of the gynaecologist. *A quick decision making in ovarian tumors in favour of conservative laparoscopic surgeries for benign lesions versus staging laparotomy for ovarian malignancies is possible by a recourse to colour Doppler. In obstetric practice colour Doppler plays a vital role in high risk pregnancies towards the goal of improvement of perinatal salvage. In major hospitals with cardiology and other specialities colour Doppler facilities prove to be affordable in combination with obstetric and gynaecological practice.*

The next major achievement is the development of lesser invasive surgical modalities and medical methods for treatment of diseases of the reproductive organs. Many surgical emergencies such as ectopic gestation and trophoblastic disease are currently treated medically, and thus allowing for organ preservation and preservation of reproductive function. Similarly operative laparoscopy and operative hysteroscopy have come to remain the most favourite surgical armamentarium of the gynecologists, and these minimally invasive and minimally access surgical procedures promote organ preservation while successfully treating gynaecological diseases. ***The outcome of modernisation in gynaecological practice is cancer prevention, effective treatment, patient safety and convenience, organ preservation, preservation of fertility potential and lasting endocrine function***

of the ovaries to the natural age of menopause.

Vaginal hysterectomy should be the choice when there is a clear indication for hysterectomy for benign disorders. A prior endovaginal sonographic evaluation is mandatory and whenever a need arises laparoscopic inspection or assistance should be resorted to. ***We, the gynaecological surgeons, should be known for our proficiency and manual dexterity in vaginal surgeries and operative endoscopies.***

Current day management of infertility has been quite methodic, well disciplined, more logical and hence remain "couple friendly". ***"Couple friendly", because the aim is to complete the investigation and treatment on "single day" protocol which provides for clear understanding, best decision making, proper counselling and improved fertility rate.*** *The highlights of the modern approach are application of simple and lesser invasive procedures with no or minimal hospital stay which prove to be more economical and time saving. The current developments in andrology, endovaginal sonography, endoscopy, endocrinology, micromanipulation and genetics have been instrumental for achieving this goal.*

The clinician managing infertile couple should be self reliant in endosonography, endoscopy, endocrinology and basic andrology. After the preliminary testings of the couple, the clinician studies the seminal parameters, and this is followed by endovaginal sonographic evaluation. Endovaginal sonography forms the strategic investigation to identify or exclude pelvic factors or anovulation as the cause of infertility. Pelvic factors are managed by operative laparoscopy or hysteroscopy. Estrogenized anovulatory women are best treated with clomiphene citrate who do not need any form of cycle monitoring, androgenized anovulatory women are better treated by low dose gonadotropins or ovarian follicle puncture. Genetic engineering has paved the way for development of recombinant gonadotropins, GnRH agonists and antagonists.

While performing follicle puncture, to avoid pelvic adhesions and damage to ovary, needle puncture alone should be preferred and cautery or laser should be avoided. It has been well documented that the pregnancy rates are comparable in the two groups. Hypoestrogenic women with normal ovaries should be checked for hyperprolactinemia, treatment of which is quite gratifying.

It found normal at basic investigations including endovaginal sonography the young infertile couple adopt expectant management for at least 6 months awaiting spontaneous conception. Women above 25 years of age and with more than 2 years of infertility should opt for detailed evaluations including hystero-laparoscopy. Detailed counselling of the couple, with video recording of the sonography and endoscopy findings go a long way in assuring the best services, while the couple remain well informed on their problems and the scope for conception.

The advent of newer microtelescopes (1.9 mm to 4 mm) allows for needlescopy, microlaparoscopy or minilaparoscopy, which are less morbid and more simple procedures that could be performed under sedation and local anaesthesia, and as an outdoor procedure. This could be well complemented by office hysteroscopy with the slender telescope and without the need for cervical dilatation. While endosonography is ideal for excluding a pelvic pathology, if there is a need for diagnostic

laparoscopy micro or minilaparoscopy should be preferred. Only if major operative procedures are needed one should employ the standard 10 mm laparoscope.

If desired results have not been achieved in 6 months to 1 year of optimal treatment the couple should be directed for ART. Genetic counselling becomes equally important in repetitive reproductie failures. Extensive pelvic surgeries and protracted ovulation induction protocols have no place in modern practice of infertility, and they should be replaced by ART procedures, with better chances of conception by IVF or ICSI.

A comprehensive reproductive health care program is far from complete without a recourse to fertility control through family welfare programs. It is heartening to see that midtrimester abortions are on the decline, and ideally termination of pregnancies beyond 35 to 40 days should be discouraged, so much so menstrual regulation or miniabortion is the only optimal medical termination procedure practised. Fertility control is best achieved by contraception and sterilization.

No doubt that banding the tubal isthmus at laparoscopic sterlization is one of the simplest and most effective modality of fertility control. However, in the modern era of advancements in operative laparoscopy midisthmal segmental resection and biopsy should be well in order in terms of utmost effectiveness and documentation. Simultaneously the surgeon should make a comprehensive inspection of the entire peritoneal cavity. ***One should avoid the 10 mm and 12 mm laparoscopes and favour 4 mm telescope for performing tubal sterilisation.***

For spacing of births now we have excellent nonsteroidal and steroidal contraceptive agents. The nonsteroidal agent, centchroman, has been proved to be the most effective and safe contraceptive, provided the new altered dosage regime could be accepted. The finest progestogen, namely, desogestrel, in the OC pill has revolutionised and popularised the safety of hormonal contraception. Both centchroman and Desogestrel containing OC pill have varied noncontraceptie applications and benefits. ***While centchroman is protective to the breast and metabolically safe, OC pills protect the endometrium and prevent ovarian cancers.***

When we advocate fertility control we have the tremendous responsibility towards the family. Welfare of the children and preventive measures for them become the primary responsibility of the family welfare program.

Now it is evident that all these specialised areas cannot be handled by the obstetrician gynaecologist. Hence, I make an appeal that let us objectively divide ourselves and take up vaired assignments, as some of us perinatologists, oncologists, infertility specialists, endoscopists or sonologists. Let us inculcate this doctrine of superspecialisation into the minds of the younger generation of obstetricians and gynaecologists and the students, so much so they decide their speciality at the very outset and get trained and develop expertise.

If one means real service to women of our country, and honestly wishes to promote reproductive health care it can only be achieved by the manpower of our speciality constructively utilised in various superspecialities. ***By this strategy, while we achieve refinement in health care, we also provide job opportunity to all the gynaecologists, and equally important they have job satisfaction.*** *This vicious cycle will promote a sense of security, responsibility and interest among our junior gynecologist and thus the health of our women are absolutely safe in their hands.*