ISSUE 3 | Pages 16

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Newsletter of The Indian College of Obstetricians & Gynaecologists

ICOG campus

Advancing Standards of Education and Healthcare Practices

ICOG Office:
Model Residency Co-Op. Hsg. Society,
605, Bapurao Jagtap Marg,
Jacob Circle, Mahalaxmi East,
Mumbai 400 011.

President Message

Dr. Sanjay Gupte
President FOGSI 2010

Dear friends,

At the outset I wish you all a very prosperous and a healthy New Year and may all our wishes come true. I have been bestowed upon the honour of the President of FOGSI, which is the largest organization in the world. We should now make it more effective and meaningful to our members and the nation. To be able to achieve what we desire, it is important to keep our inner fire burning and the two ways of doing it are... one, to appreciate what we have and two, to constantly ask what can be done? That is to be positive and to be in action. We have to appreciate what we have in FOGSI as a large society and ICOG as our prestigious academic wing and we should strive to acquire what we want to happen on an individual as well as an organizational level. I congratulate Dr.Duru Shah, Dr.Uday Nagarsekar and Dr. Hema Divakar for leading the ICOG and am confident about their capabilities.

This year I have undertaken standardization, data collection and clinical research as the main plans of FOGSI. We also need to formulate detailed policies regarding clinical and ethical issues through our organization and we need to make our organization a role model for other such organizations in the country to emulate. This requires great vision collective hard work and perseverance through advocacy of right goals.

My expectations are to make the ICOG a strong research and academic body of the FOGSI and it therefore is imperative that there is constant synch of ICOG agenda in keeping to the demands of FOGSI. We also need to increase the membership of the ICOG to be able to build what we aspire. We are in the process of developing FOGSI- ICOG consensus statements and this has to expedite in a time bound fashion and is now long overdue. Dissemination of knowledge, standardization in training in Obstetrics and Gynecology and research should be the important thrust areas which have to be undertaken.

As the President of FOGSI and the ICOG I bring in 2010 with 'Reaching the Unreached' as the philosophy this year. This means reaching out with knowledge, reaching far and wide to all the members and also beyond the frontiers of the country and to reach the unreached goals. There are focused international conferences planned viz the International Conference on Contraception, February at Jaipur, the Satellite Conference, July at Bhubaneswar, the World Congress on Clinico-pathothysiology of Pregnancy, August in Pune, the WHO Conference In New Delhi, the Young Talent conference for Postgraduates and the Medico legal regional conference. We also have planned about six various kinds of workshops to be conducted all over the country and over 25 research projects for you all to participate in. Please look out for the dates of the same.

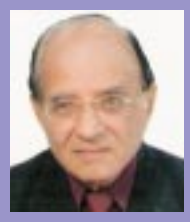
As you are aware the National Eclampsia Registry was initiated through the ICOG-FOGSI in August 2008 and has received a great response from the members .It needs to be taken forward with more intense efforts as today we are in the possession of a strong data base. We will soon now be able to fill up the information online and that I feel is a new feather in the cap of FOGSI

I urge all FOGSI members to actively participate in all these projects which have been planned exclusively for you. Data collection and standardization are the two important aspects which will be stressed upon in all these projects. I look forward to meet you at Guwahati and also take this opportunity to urge you to be the members of the ICOG.

Warm regards

Dr. Sanjay Gupte
President FOGSI 2010

ICOG Comes of Age



Dr. Rohit Bhatt
Former Chairman ICOG

ICOG had longer gestation period between conception of the idea and its implementation. Countries like United Kingdom, Australia, New Zealand, Canada and other developed countries have their colleges for a long time. Even developing countries like Thailand, Philipines, Srilanka, Malayasia and Singapore had their own college long before, we had it in India. The good point in the delay in establishing our college is that, we had the opportunity to study the constitution and working of these colleges before we formulated our own constitution. We have successfully passed through the phase of teething troubles common to in any n ew organization. We are now nearly 25+ years old organization. It is time to sit back and consider how ICOG could be the leading organization in the world.

We must assess our strength and our weaknesses.

What we have achieved?

There is no doubt that ICOG has debated many new proposals and implemented some of them. ICOG has introduced seminars, CME programs, national and international fellowships and study programs. ICOG has collaborated with RCOG in their conferences. ICOG has formulated "Best practice" guidelines on subjects of interest in India. Special courses in Emergency Obst.Care (EmOC) are important activity of our college. It would help in improving obstetric services in the rural areas

What more can ICOG do? Task ahead

ICOG has to consider following points while charting the plan for future.

- Increase in number Fellows & Members without compromising on quality
- Encourage members & fellows to develop work culture and follow ethical practice
- Encourage clinical research in young talent
- Devise the scheme for fellows and members to visit the center of other fellows to learn special problems
- Encourage regional co-operation for academic activities
- Have tie ups with similar colleges in other countries
- Seek recognition of our college by government and medical council
- Introduce examination for diploma and membership of ICOG
- Since ICOG is considered an academic wing of FOGSI, all academic activities should be under ICOG banner
- Encourage members/fellows to maintain high academic, ethical and moral standards. Establish mechanism to ensure the standard of discipline
- Establish ethics committee to review research proposals and also discipline its members. Ethics committee should see that members maintain high academic and moral code of behavior.
- Encourage social interaction among members /fellows. This can be achieved by social visits by members with their family to places of other members.

Detailed discussion on above issues is not possible due to constraint of space. I shall touch upon a few of the above mentioned topics. Dr.Parikh has already dealt with research in the previous issue.

Add more members/ fellows

Unfortunately ICOG represents less than 1 percent of FOGSI members. If ICOG has to be effective, every member of FOGSI should be a part of ICOG.It is sad but true that FOGSI members consider ICOG as an organization only for elite members and most members do not take note of ICOG activities. It is unfortunate that teachers in medical colleges have not joined ICOG in a big way in spite of special incentives for them .I asked some teachers why they do not join ICOG.They felt that fee structure is high and it does not give any benefits in the service. I told them that most other colleges in the world recover annual fees from its members/ fellows. ICOG takes only one time fee and there is no annual fee to be paid. ICOG members/ fellows ask, "What ICOG can do for them?" My answer to them would be the same what President Kennedy said." Do not ask what ICOG can do for you; Think what you can do for ICOG" I agree that the colleges in other

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Chairman's Message

Dr. Duru Shah
Chairman ICOG
chairman.icog@gmail.com

To become a **new Member or Fellow** of ICOG ...please log on to **www.icogonline.org** for details.

Your feedback will also be appreciated by e mail **chairman.icog@gmail.com**

Dear Friends,

Just as our Second Campus Issue was released, so also was the first document of the "Accreditation Criteria" released by the Ministry of Health, Government of India.

I thank Dr. Himanshu Bhushan Assistant Commissioner, Union Health Ministry, and Government of India for this herculean task.

This is the time when as private nursing home owners you can get yourselves accredited, based on these criteria. You can individually be accredited for training Skilled Birth Attendants from the public sector and for offering Reproductive health services to the "below the poverty line" patients. This will give you a four fold benefit.

1. Your nursing home will be accredited so that the standard of care improves.
2. The activity will be financially gainful to you.
3. Your Nursing Home will be recognized by the local health society for other gov ernment related projects or activities.
4. You will have contributed to the lowering of maternal mortality in the rural sector by upgrading the skills of the Skilled Birth Attendant of the public sector.

I hope that ICOG / FOGSI will once again lead the initiative and involve the private sector doctors who meet the accreditation criteria. Thus ICOG / FOGSI will be at the forefront of piloting a model, which will hopefully be adopted by GOI - Ministry of Health and Family Welfare and the respective State Health Departments.

I request all owners of private nursing homes to check out all details on the ICOG website on www.icogonline.org under the section "Accreditation". Those interested in volunteering can write to us at *chairman.icog@gmail.com*

It is a well known fact that higher education in our country needs to be revamped Spearheading this reform is Mr. Kapil Sibal, Human Resources Minister who had proposed 2 legislatures, the first to check malpractices in Colleges and the other to setup an Education Tribunal. Both these bills have been on the agenda of the Union Cabinet and were to be introduced in the Parliament so that they could be implemented in the next academic session. But the speeding reforms hit a speed breaker with the Union Cabinet not approving them and referring both the Bills to the "Group of Ministers "as they had some objections to certain clauses in the Bills.

I do hope this is not another case of a "Committee" being set up to look into a problem with a never ending tenure and a never revealing result!

It is unfortunate, that whenever an activity which upgrades services to the masses is taken up in true earnest, there are many hurdles which are created by those whose nefarious intentions are affected. I do wish that these Bills get passed at the earliest as they will definitely raise the standard of education in this country.

Another bit of news which has recently attracted my attention was a headline "Soon, it may be publish or perish for medical students."

This article highlighted the proposal of the Medical Council of India (MCI) who recommended that, for post graduate students to be eligible to appear for exams they would have to publish at least one research paper during their post graduate training period. The MCI has also recommended that post graduate student would have to present at least one poster and one paper at a national level conference and publish or send for publication to a national or indexed journal at least one piece of original research. The aim is to boost research activity which would ultimately improve patient care. The MCI is serious about this has also been corroborated by the fact that the Council recently made it mandatory for Assistant and Associate Professors to produce research to be eligible for promotion.

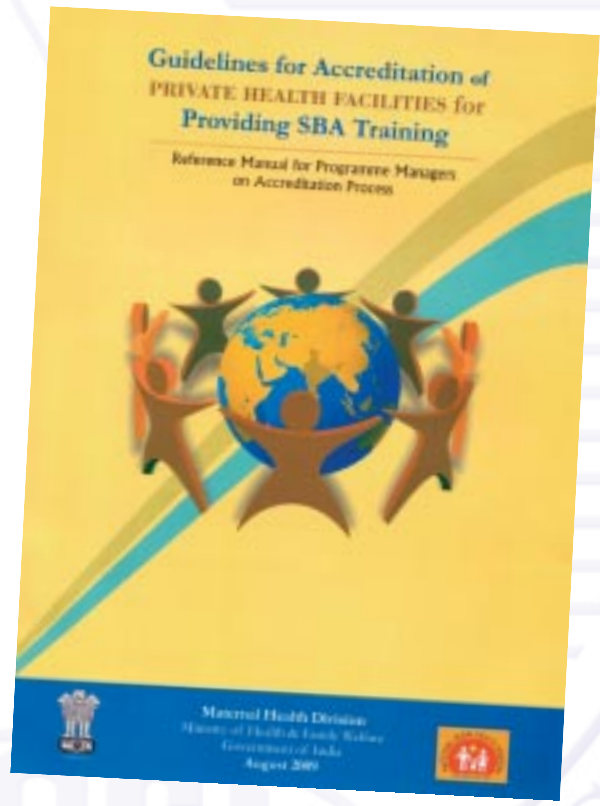
At ICOG, our current focus is on "Advancing standards of Education and Health Care practices". Keeping this in mind we have initiated a series of Updates called "Current Opinion," which will truly focus on a topic, discuss it threadbare and will be multidisciplinary. It is time for us to learn the recent advances in other disciplines of medicine, which affect the health of our women.

PCOS is one such area in women's health, which requires a multidisciplinary approach. In order to understand this very complex subject, we have organized an Update in collaboration with "The International Association of Androgen Excess and PCOS" between 19th - 21st March 2010 in Goa. With 6 international faculty and 6 non Gynaec faculty besides our own gynecological experts, and with the fantastic ambience of the Marriot hotel in Goa, I think it will be an opportunity which nobody should miss, only because all of us deal with PCOS women every single day in our clinical practice. The details of the program are at end of this issue. Do come and participate in the discussion which promises to be extremely interactive.

Hope to see you again in Goa, after Gauhati.

Warm Regards,

Duru Shah
Chairman ICOG



Letters to Editor

Dear Dr. Duru Shah,

At the outset, I would like to congratulate you & your new team for the wonderful work you are doing for ICOG. The ICOG Campus issues are academically rich in its contents & most pleasing to the eyes with its colorful classical taste.

The adolescent Health committee of FOGSI would like to be associated with you in your endeavors. We do have a website which I request you & the readers to visit at : http://adolescenthealthindia.org/

With best wishes,

Dr. Roza Olyai
MS, MICOG, FICMCH, FICOG
National Chairperson Adolescent Health Committee FOGSI
Olyai Hospital, Hospital Road, Gwalior-MP India
Mobile: (+91) -(9425112617)
Website: http://adolescenthealthindia.org/

ICOG Comes of Age

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countries have recognition from their governments and medical councils. Every practicing ob.gyn in these countries is a member/fellow of their college. In India, it is not so.
There are many practicing Ob.Gyn in India, who are not members of FOGSI. I feel that this issue affects all clinical disciplines. It is time for colleges of all clinical disciplines in India to approach the government to make it obligatory for every practicing clinician to be a member /fellow of their respective colleges. If our college wants to maintain high academic and ethical standards, it must be able to ensure discipline among its members. If FOGSI /ICOG have the teeth to bite, it will ensure discipline from our members.

Recognition of our college by Government/Medical council
This is a very vital issue. It is important that membership of our college is considered at par with other postgraduate qualifications. I understand other colleges in India (surgery, medicine est.) face similar problem. If all colleges in India unite and try through political and academic forces, we may succeed in getting the recognition.

ICOG and Rural Health
ICOG should recognize that obst.gyn problems in rural set up may require different approach. May be we need modified guide lines to solve many of the rural health problems

If any organization is to succeed, it needs following.
- Coming together is beginning
- Keeping together is progress
- Working together is success.

I feel we have achieved the first two essentials. Now it is up to us to "work together for success"

Dr. Rohit Bhatt
Former Chairman ICOG

ICOG CMEs

The *Dr C S Dawn CME* was held in *Amravati* by the Amravati Obstetric and Gynaecological Society on Sunday 13th December. Dr Pushpa Somwanshi, Prof and HOD of Dr P.D.M Medical College, Amravati started with the first of the scientific sessions. The formal inauguration was done by guest faculties Dr Hema Divakar and Dr Sujata Misra.

The CME on Medical Disorders Complicating Pregnancy was a huge success with close to 50 Delegates attending the same. The sessions on Anemia and Diabetes in Pregnancy were very useful. Common issues with iron sucrose and GDM were resolved. Sessions on Basic and Intensive management of Hypertensive Disorders in pregnancy along with Heart Disease and Renal Failure in Pregnancy were also held.

ICOG Secretary Speaks...

Dr. Hema Divakar
Hon. Secretary, ICOG
secretary.icog@gmail.com

As we enter the New Year, hundreds of New Fellows and Members join us!
People may doubt what we say, but they always believe in what we do – Don Galer

The Indian College Of Obstetricians Gynaecologists was established on 21st December 1984 as the Academic Wing of FOGSI at Durgapur on the occasion of the 28th All India Obstetric & Gynaecological conference. The "College" with 205 Founder Fellows has grown from strength to strength over the years.

Responding to our call to enrol into the ICOG, we have had a record number of *Fellows and Members* who have joined us this year- the numbers far exceeding a Hundred in the last three months!

ICOG-CME Study hours leads the way to evidence based guidelines.....
There is nothing about a caterpillar that tells you its going to be a butterfly – Buckminister Fuller

With a keen focus on the aims and objectives of the College, that is to promote education, training, research and spread of knowledge in the field of Obstetrics, Gynaecology, Reproductive health, Family Welfare and related areas, we invited societies to conduct CMEs. We were delighted to receive requests from many societies to conduct the *ICOG-CME* programmes in their respective places, and offering platforms for brilliant academic deliberations. The programmes in Delhi, Aurangabad, Nanded, Bellary and Amarawathi and Akola, have had the ICOG Study hours on the identified themes and gathered data on the Knowledge, Attitudes and Practices on important issues like Gestational Diabetes Mellitus. The analysis would lead the way forward for establishing guidelines and Practice pathways to be followed in our country, based on evidence generated.

Never discourage anyone who continually makes progress, no matter how slow – Plato
This is so true with respect to establishing Good Clinical Practices Recommendations – GCPR. We have attempted to standardize Health Care Practices by initiating the "Good Clinical Practice Recommendations" (GCPR) The first set of eight recommendations have been recently been published and more are to follow. We have set up a new core committee and smaller sub groups of experts for their inputs and speedy progress of the GCPRs in the pipeline.

A lot is happening at ICOG!
A wise man will make more opportunities than he finds – Francis Bacon
The ICOG Web Portal promises to create a visual delight to all our visitors who would like to learn form others. We plan to launch it by inviting the experts and hope that it soon converts into an electronic library where speakers and surgeons would be able to present and archive their oratory and surgical skills. New certification course on "minimally invasive surgery" has been started this year and more and more applications are being received for creating centres of excellence to train our members in these courses.

MOVING AHEAD .....
I am prepared to go anywhere provided it be forward – David Livingstone
This saying aptly captures the spirit of ICOG under the able leadership of our Chairman Dr Duru Shah and all possible co-operation from FOGSI President Dr Sanjay Gupte.

We are happy to march ahead with the team as we step into the year 2010 and offer more, reminding ourselves that Life must be measured by thought and action, not by time!!!

Wishing all our readers a very fulfilling New Year

Warm regards

Dr Hema Divakar
Hon. Sec. ICOG

To all Organizers of Conferences, Workshops and Training courses.

Awarding Credit through Training Courses and Conferences. If you determine that your course, seminar or conference qualifies for credit points, please send details to
secretary.icog@gmail.com

Dr. Duru Shah
Chairman ICOG

Dr. Hema Divakar
Secretary ICOG

Dr. Safala Shroff
Correspondent

Dr. Ameya Purandare
Correspondent

Inviting Articles From
Young Members
Write to icogcampusnews@gmail.com

Young Members' Forum

DNA Fragmentation Test

Dr. Arati Gupte-Shah
Consultant
Gupte Hospital, Pune

The genetic integrity of the spermatozoon is essential for normal embryo development. A high level of DNA fragmentation in sperm cells may represent a cause of male infertility that conventional examinations - sperm concentration, motility analysis, morphology assessment - cannot detect. Results reported in the scientific literature have shown that regardless of the assisted reproductive technology used, an elevated level of DNA fragmentation above the critical threshold will significantly compromise the possibility of a successful pregnancy.

Principle

The sperm chromatin, unlike somatic cells, is very tightly compacted due to the unique association among DNA, nuclear matrix and sperm nuclear proteins(1). Disulphide cross links between the cysteine- rich protamines present in the sperm nucleus, allows compaction and stabilization of the sperm nucleus, protecting sperm DNA from external stress and subsequent DNA breakage. (2,3)

The Sperm DNA Fragmentation test

This test provides a reliable analysis of sperm DNA integrity that may help to identify men who are at risk of failing to initiate a healthy ongoing pregnancy. Information about sperm DNA integrity may help in the clinical diagnosis, management and treatment of male infertility and may be of prognostic value in assessing outcome of assisted conception treatment.

Methods

- TUNEL (terminal deoxynucleotidyl transferase-mediated dUDP nick-end labelling)
- The Comet method
- The SCSA®-method (Sperm Chromatin Structure Assay)

  The SCSA®-method was developed for analysis of sperm (4). The principle is based on denaturation of sperm DNA using low pH and subsequent staining by acridine orange. This method has now been standardized by development of specific software and protocol used for interpretation (5).

- The sperm chromatin dispersion test (SCD)

It examines the migration of small DNA fragments into agarose and uses visualisation with the DAPI dye and evaluation by bright field microscopy. Five SCD patterns were established (6). The amount of fragmentation is assessed according to the width of the haloes. Sperm cells with very small halos, without halos and without halo degradation contain fragmented DNA.
Figure 1 shows all patterns.

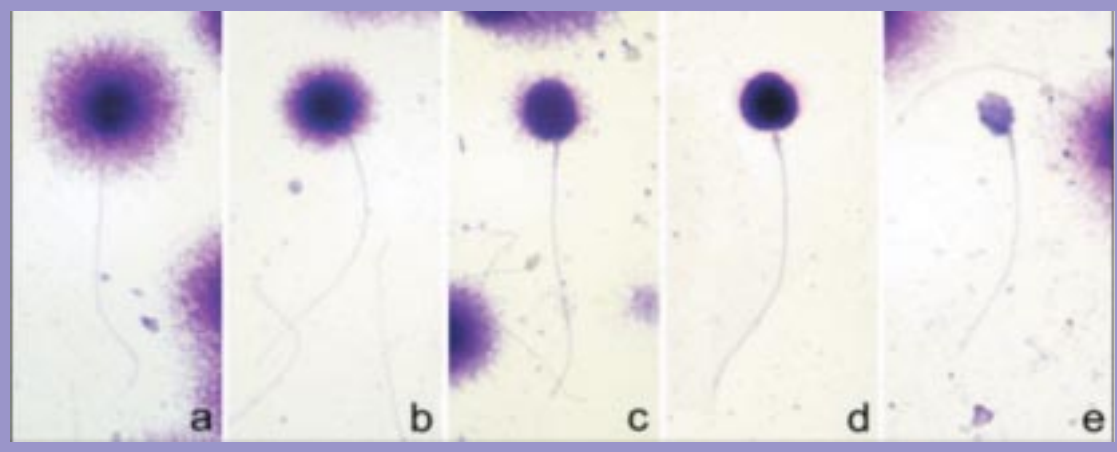

Figure 1. Sperm chromatin dispersion patterns observed after Wright staining. (a) Big halo. (b) Medium size halo. (c) Small halo. (d) Without halo. (e) Without halo and degraded.

Clinical significance of DNA fragmentation:

Some of the early clinical data involving DFT suggested that men with more than 30% of their DNA with fragmentation had extremely poor pregnancy rates (1% or less) even with aggressive techniques such as IVF. Current data proves that this was not true! In 2004, several research abstracts were presented at the annual meeting of the American Society for Reproductive Medicine - ASRM. The results of these studies were quite different than the original studies.

In Colorado, 128 couples going through an IVF cycle had sperm frozen for DFT. The pregnancy rate in patients with a DFT showing less than 30% fragmentation (the normal group) was 62%. The pregnancy rate in patients with an DFT greater than 30% (the abnormal group) was 81%. In the abnormal group, the average SCSA result was a fragmentation index of 40%.

Another study performed in North Carolina and since published in the journal Fertility and Sterility involved 100 couples undergoing IVF. DFT testing was performed on the same semen specimen that was used for fertilization of the eggs. Nine of nineteen couples achieved clinical pregnancy when the DFI (DNA fragmentation index) was greater than 27 %.

The best conclusions that can be made today about an abnormal DNA FRAGMENTATION TEST are:

- All men, whether fertile or infertile, have some sperm with fragmented DNA
- Men with a normal semen analysis can have an abnormal DFT.
- A DFT test result is very consistent over time. The DFT is more consistent than a semen analysis. Some things can cause an abnormal test, however, such as a high fever or certain medications. Certain steps in preparing to do the test can affect the results of the DFT.
- The best evidence to dates suggests that men with an abnormally high percentage of sperm with DNA fragmentation, have a pregnancy rate similar to men with a normal percentage of sperm DNA fragmentation when using techniques such as IVF.

Causes of Sperm DNA Fragmentation

A major causative factor for sperm DNA damage is oxidative stress. Other factors include abnormalities in the regulation of apoptosis, or defects in topoisomerase activity. Increased sperm DNA fragmentation is associated with:

- infection
- leucocytospermia
- sperm cytoplasmic droplets
- febrile illness
- elevated testicular temperature
- diet
- drug use
- cigarette smoking
- exposure to environmental and occupational pollutants
- advanced age
- varicocoele

Indications for Male Patients who may benefit from the Test

- unexplained infertility
- arrested embryo development
- poor blastocyst development
- multiple failed IVF/ICSI treatment
- recurrent miscarriage in partner
- advanced age
- varicocoele
- poor semen parameters
- exposure to harmful substances

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From the Desk of the Web Editor

Dr. Mandakini Parihar
Chairman of Sub committe

"**The great thing about a computer is that no matter how much you stuff into it, it doesn't get bigger or heavier." – Bill Gates**

Dear Friends

The Vibrant new **www.icogonline.org** needs more visitors ....YOU.

The ICOG website has had a facelift and been re-designed to ensure that the user finds it very effective tool in getting all the information about ICOG and also gather academic inputs from ICOG online.

"Advancing standards of Education & Health care Practice", is the ICOG motto and. ICOG is the academic wing of FOGSI. With this in mind, the new website now carries a lot of educational material and information. There are 8 FOGSI ICOG good practice clinical recommendations. ICOG Tube and the ICOG Satellite School carry the video and the details of all the programs conducted. All issues of the ICOG Campus are archived on the website.

There are good and interesting clinical presentations on problems of the youth, with a strong focus academics and practical pointers in managing these patients on the *ICOG SlideShar*e. The next time you need some information on problems in the youth; there is a ready slide show for you to download.

Very soon, we will have the *ICOG blog* ready for voicing your thoughts on academic issues and discussing important and difficult cases on the second opinion. The section About ICOG - gives all the details about the organization along with all the rules and regulations which apply to the members and fellows. There is strength in numbers, and I urge you all who are not yet members and fellows of ICOG, to please do so this year itself. All fellows and members will be soon receiving a login number from the ICOG office and using this number, you can login to the members section of the website. For all of you, who haven't become members or fellows as yet, please download the form directly from the website with details of the eligibility criteria mentioned.

The directory of all ICOG members and fellows and details of all ICOG activities can be got online.

FOGSI-ICOG together has started very successful public private partnerships, the EmOC Certification Course and the Eclampsia Registry. All the details can be seen on the website.

In order to further strengthen academic pursuits, ICOG now has 3 very important 6 month Certificate Courses in Reproductive Medicine, Ultrasound and Perinatology. The details of the accredited centers along with the course syllabus are online and would be of tremendous help to the fresh graduates and the practicing gynecologists who would like to sub-specialize in any one of these branches.

We welcome articles of interest from the members and active participation in the Case Discussion forum. *ICOG Member Speak* is for YOU... give us your valuable feedback and suggestions. Communication is an extremely important force which links one to another. Communication systems and especially the World Wide Web has shrunk our world and helped us connect with each other.

Let's stay connected on the *www.icogonline.org*

With warm regards,

Dr. Mandakini Parihar

Calendar of Events Osteoporosis

World Congress on Osteoporosis 2010

IOF WCO - ECCEO10

May 5-8, 2010 Florence, Italy

www.iofwco-ecceo10.org

Clinical Osteoporosis 2010:

An ISCD-NOF Symposium

March 10-13, 2010
San Antonio, Texas

This premier event combines the expertise of the two leading bone health organizations into one must-attend meeting.

For details visit: www.clinicalosteoporosis.org

14th Asia-Oceania Congress of Endocrinology (AOCE)

December 2-5, 2010
Kuala Lumpur, Malaysia

Hosted by the Malaysian Endocrine and Metabolic Society

For further information contact:
Congress Secretariat
Tel: +603 - 2162 0566, Fax: +603-2161 6560
email: aoce2010@console.com.my

Role of Calcium and Vitamin D in Postmenopausal Osteoporosis

Dr. Beena Bansal
MD, DM, Consultant

Dr. **Ambrish Mithal**
MD, DM, Chairman
Division of Endocrinology and Diabetes
Medanta, The Medicity, Gurgaon (Delhi NCR)

Definition of osteoporosis

Osteoporosis is a systemic skeletal disease characterised by low bone mass and microarchitectural deterioration of bone tissue, with a consequent increase in bone fragility and susceptibility to fractures.

The introduction of bone density measurements, and in particular dual x ray absorptiometry (DXA), has revolutionised the whole field of osteoporosis, and it is well established that bone mineral density provides the best means of assessing an individual's risk of fracture, with every reduction of 1 standard deviation in bone density equating to a roughly 2-2.5 fold increase in the likelihood of fracture.

Bone mineral density measurements are conventionally expressed as standard deviation scores. A Z score relates the measured bone mineral density figure to the mean value expected for a healthy normal subject matched for age, sex, and race by expressing the difference between the patient's bone mineral density and the age matched mean in units of the population standard deviation. The T score is similar but indicates the difference between the patient's bone mineral density and the ideal peak bone mass achieved by a young adult.

WHO operationally defines osteoporosis as a bone density that falls 2.5 standard deviations (SD) below the mean for young healthy adults of the same gender- also referred to as a T score of -2.5.

Epidemiology of osteoporosis

Osteoporosis occurs more frequently with increasing age as bone tissue is progressively lost. In women, the loss of ovarian function at menopause precipitates rapid bone loss such that most women meet the diagnostic criterion for osteoporosis by age 70-80.

The epidemiology of fractures follows the trend for bone loss. Fractures of the distal radius increase in frequency before age 50 and plateau by age 60. In contrast, incidence rates of hip fractures double every 5 years after age 70. The probability that a 50-year-old white woman will have hip fracture during her lifetime is 14%. We do not have direct data on the incidence of hip fractures in India, but extrapolating from studies in expatriate Indians gives an estimate of 4,40,000 hip fractures per year with a female: male ratio of 3:1. Hip fractures are associated with a high incidence of deep vein thrombosis and pulmonary embolism (20-50%) and a mortality rate between 5 and 20% during the year after surgery.

Vertebral fractures are also common but only a fraction of these are recognised clinically because many are asymptomatic. Vertebral fractures are also associated with long-term morbidity and slightly increased mortality due to pulmonary disease. Multiple vertebral fractures are lead to height loss, kyphosis, pain and discomfort of the back. Thoracic fractures are associated with restrictive lung disease, whereas lumbar fractures are associated with abdominal symptoms including distension, early satiety and constipation.

Pathophysiology of postmenopausal osteoporosis

Osteoporosis results from bone loss due to age related changes in bone remodelling as well as extrinsic and intrinsic factors that exaggerate this process. These changes may be superimposed on a low peak bone mass (PBM).

Age related changes in bone mass throughout life in women and men. Peak bone mass is attained in the third decade of life and age related bone loss probably starts around the age of 40 in both men and women. In women, bone loss accelerates around the time of the menopause. Genetic factors have a strong influence on peak bone mass, which is attained during the third decade of life and is an important determinant of bone mass later in life. Nutrition, particularly calcium and vitamin D intake, hormonal status, and physical activity also influence peak bone mass.

In adults bone remodelling (bone formation by osteoblasts and bone resorption by osteoclasts) (figure 4) is the principal metabolic skeletal process, which serves two purposes-repair of skeletal microdamage and supply of calcium from the skeleton.

Bone remodelling is regulated by estrogens, androgens, vitamin D and parathyroid hormone as well as locally produced growth factors.

Estrogen deficiency at menopause causes bone loss by exacerbation of imbalance between bone formation and resorption. Estrogen controls apoptosis of the cells-osteoblasts, which form bone and osteoclasts, which resorb bone. In estrogen deficiency, lifespan of osteoblasts is decreased whereas longevity and activity of osteoclasts is increased.

Calcium nutrition

Peak bone mass may be impaired by inadequate calcium intake during growth, thereby leading to increased risk of osteoporosis later in life. Thus maintaining adequate calcium intake during growing years- say from the age of 10 to 18 years- is vital for improving bone health and can be an important public health strategy for reducing long term risk of fractures. During the adult phase of life, insufficient calcium intake contributes to secondary hyperparathyroidism and an increase in rate of bone remodelling to maintain serum calcium levels.

PTH stimulates hydroxylation of 25(OH) vitamin D in kidney to increase 1, 25(OH)2 Vitamin D which increases gastrointestinal calcium absorption. PTH also reduces renal excretion of calcium. Although these are appropriate compensatory homeostatic responses for adjusting calcium economy, the long term effects are detrimental to the skeleton. Parathyroid hormone activates osteoblasts, which stimulate the transformation of preosteoclasts into mature osteoclasts. Osteoclasts dissolve the mineralized collagen matrix in bone, causing osteopenia and osteoporosis and increasing the risk of fracture.

Calcium supplementation should be adjunctive treatment for all women with established osteoporosis and must be part of any preventive strategy to ameliorate bone loss. Increased calcium intake reduces the hyperparathyroidism associated with advancing age and can enhance mineralization of newly formed bone. A meta-analysis of 15 calcium intervention trials involving healthy women and postmenopausal women with osteoporosis demonstrated an increase of nearly 2 percent in spine bone mineral density after two years, although the risk of vertebral and nonvertebral fracture was not reduced to a statistically significant level.

There are conflicting data about the antifracture efficacy of calcium. There is however no controversy about the fact that calcium deplete individuals benefit with calcium supplementation. Indian data suggest very low calcium intake (300-400mg/day) in most population groups, particularly postmenopausal women. The need for increasing calcium intake in Indians cannot be overemphasised.

A total calcium intake of over 1000 mg per day (through diet, supplements, or both) is recommended for all postmenopausal women. The major source of calcium in the diet remain milk and dairy products; a greater consumption of low fat milk and its products should be strongly promoted as a public health strategy for building better bones.

Vitamin D

During exposure to solar ultraviolet B (UVB) radiation, 7-dehydrocholesterol in the skin is converted vitamin. Vitamin D2 (ergocalciferol) and vitamin D3 (cholecalciferol) from dietary sources are incorporated into chylomicrons and transported by the lymphatic system into the venous circulation. Vitamin D made in the skin or ingested in the diet can be stored in and then released from fat cells. Vitamin D in the circulation is bound to the vitamin D-binding protein, which transports it to the liver, where vitamin D is converted to 25-hydroxyvitamin D [25(OH)D]. This is the major circulating form of vitamin D that is used by clinicians to determine vitamin D status. This is converted in the kidneys to the biologically active form - 1,25-dihydroxyvitamin D [1,25(OH)2D].

Severe vitamin D deficiency causes rickets in children and osteomalacia in adults. Mild vitamin D insufficiency leads to compensatory secondary hyperparathyroidism and is

an important risk factor for osteoporosis and fractures. There is evidence that vitamin D insufficiency may be more prevalent than previously thought, particularly among elderly. In fact vitamin D insufficiency may be one the most widespread health conditions globally. Serum 25-hydroxyvitamin D [25(OH)D] level is an indicator of vitamin D sufficiency. Most recent evidence, based on clinical (reduction in fracture and fall risk, and improvement in muscle strength) and biochemical correlates suggests that optimal targets for 25(OH)D are >75nmol/l (30ng/ml).

While sunlight remains the most natural and cheap source of vitamin D, the severity and high prevalence of vitamin D deficiency/insufficiency particularly in older people with osteoporosis, provides a rationale for dietary supplementation. A number of randomized controlled trials have looked at the effect of calcium and vitamin D, or vitamin D alone, in the prevention of fractures. The results from these studies have been inconsistent, possibly reflecting heterogeneity in the populations studied as regards gender mix, residential status, fracture history and baseline vitamin D status There is also considerable variation in the dose, frequency, route of administration and type of vitamin D (ergocalciferol-vitamin D2 or cholecalciferol-vitamin D3) used.

In a recent metaanalysis of 12 double blinded trials on antifracture efficacy of vitamin D, no fracture reduction was seen with a received dose of 400IU/day or less, whereas a higher received dose of 482 to 770IU/d of supplemental vitamin D reduced non-vertebral fractures by 20% and hip fracture by 18%. The antifracture efficacy increases with achievement of higher 25 (OH)D levels.

Fractures are a result of both trauma and decreased bone strength. Trauma depends on factors related to falling and to the force of the impact.There is strong evidence that vitamin D supplementation enhances muscle strength and reduces the risk of falling. An important risk factor for falls is muscle weakness, which is a prominent feature of the clinical syndrome of vitamin D deficiency and could plausibly mediate fracture risk through increasing susceptibility to falls.

Vitamin D has a direct beneficial effect on muscle, and improved strength and balance in several trials in older persons. A dose of 700-1000 IU supplemental vitamin D a day reduced falls by 19%, and by up to 26% with vitamin D3, within 2-5 months of treatment initiation. Vitamin D may not reduce falls at doses of less than 700 IU a day. Numerous studies have shown that 25(OH)D levels are low in Indians (particularly urban dwellers), across all ages- from birth to the elderly, despite abundant sunlight. This is largely related to skin colour, and cultural practices such as greater skin coverage by clothing, and sun fleeing behaviour, typical of hot and sunny countries (as opposed to sun seeking behaviour in many colder, western countires). In addition there is little vitamin D in the diet, and virtually on food fortification. Two recent studies have shown that the use of intermittent (weekly or monthly), high doses of vitamin D may be an effective strategy for achieving optimum vitamin D levels in Indians.

Recommended Ca and Vitamin D intake from Indian perspective

- **Calcium**
  - Fetus & newborn 300mg from breast milk or 400mg from cow's milk
  - Children 600mg and higher with increasing age
  - Adolescents 1300mg per day
  - Pregnancy 1200mg per day
  - Lactation 1300mg per day
  - Menopause 1300mg per day
  - Elderly >65 years 1300mg per day
- **Vitamin D**

To achieve optimum 25(OH)D levels of 30mg/ml for most adults require intakes above 800 units per day. For Indians even this 800 IU /day may be inadequate. Therefore the minimum daily dose of vitamin D supplementation for Indians should be 1000 IU/day. It is likely however that most patients of postmenopausal osteoporosis require 2000 IU/day to achieve optimum 25(OH) D levels.

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Questions for CME Credit Points *(Maximum number of Credit points – 2)*

Please submit your answers to secretary.icog@gmail.com

1. The best way to assess an individuals risk of bone fracture is
a. Serum calcium levels
b. Serum Vit D levels
c. DXA
d. Quantitative CT scan

2. WHO defines osteoporosis as an BMD T score at least less than
a. - 1 SD
b. - 2 SD
c. -2.5 SD
d. - 5 SD

3. The incidence rates of hip fractures double every 5 years after the age of
a. 40 years
b. 50 years
c. 60 years
d. 70 years

4. Factors affecting peak bone mass levels are all except
a. Parity
b. Nutrition
c. Hormonal status
d. Physical activity

5. The roles of PTH in CALCIUM metabolism are all EXCEPT
a. Stimulates hydroxylation of vitamin D in kidney
b. Reduces renal excretion of calcium.
c. Activates osteoblasts
d. Inhibits osteoclasts

6. Total calcium intake recommended for all postmenopausal women per day is
a. Over 100 mg
b. Over 500 mg
c. Over 1000 mg
d. Over 2000 mg

7. Level of Serum 25-hydroxyvitamin D 25(OH) D indicating sufficient vitamin D is
a. 40 ng/ml
b. 30 ng/ml
c. 20 ng/ml
d. 10 ng/ml

8. Mild vitamin D insufficiency leads to
a. Compensatory secondary hyperparathyroidism
b. Rickets
c. Osteomalacia
d. Berry berry

9. Numerous studies have shown that 25(OH)D levels are lower in Indians because of all EXCEPT
a. Darker skin colour
b. Sun seeking behaviour
c. Greater skin coverage by clothing
d. Inadequate dietary Vit D

10. The minimum daily dose of vitamin D supplementation to achieve optimum 25(OH) D levels for postmenopausal Indian women should be
a. 500 IU/day
b. 800 IU/day
c. 1000 IU/day.
d. 2000 IU/day

Issue 2 CME MCQ ON Anaemia in Pregnancy Answers:

1. d	2. a
3. a	4. c
5. c	6. d
7. b	8. b
9. d	10. e

Osteoporosis

Dr. Samir Dalvie
Spine Surgeon
PD Hinduja Hospital and Medical Research Centre, Mumbai

Osteoporosis is a metabolic bone disease characterized by progressive loss of bone strength and architecture. The WHO defines it by measuring the Bone Mineral Density (BMD) on a DEXA scan (Dual Absorption X-ray absorbtiometry), and comparing it with standard charts derived from Caucasian women. The T-score is the number of standard deviations that the subjects BMD is as related to average peak bone mass. The definitions are as follows:

	BMD (T-score)
Normal	> -1 Standard deviation
Osteopenia	-1 to -2.5 Standard deviation
Osteoporosis	< -2.5 Standard deviation
Severe Osteoporosis	< -2.5 SD + one or more fragility fracture

A clinical definition of osteoporosis was developed in 2001 by the NIH Consensus Development Panel on Osteoporosis. It stated: "Osteoporosis is defined as a skeletal disorder characterised by compromised bone strength predisposing a person to an increased risk of fracture". This definition takes into consideration that there are other factors that influence bone quality such as the microarchitecture of bone. However, for clinical use, measurement of BMD remains the most useful clinical tool available .

Incidence and prevalence

According to World Health Organization (WHO), osteoporosis is second only to cardiovascular disease as a global healthcare problem.

1 in 3 women over 50 will suffer a fracture due to osteoporosis; this increases to 1 in 2 over 60. 1 in 5 men over 50 will suffer a fracture due to osteoporosis; this increases to 1 in 3 over 60.

The annual incidence rate of osteoporotic fractures in women is greater than the combined incidence rates of heart attack, stroke and breast cancer.

In India, the epidemiology has a few differences from the West. India is one of the largest affected countries in the world. In 2003, the numbers of osteoporosis patients were pegged at 26 million. As compared to the west, there is a higher incidence in men, and a lower age of peak incidence in women, 10 -20 years earlier, at the age 50 - 60.

Clinical Features

Osteoporosis has been known as the 'silent disease', as it can remain undetected for years with underlying progressive bone-loss. The most dramatic symptom is the occurrence of fracture. Common fragility fractures are lower end radius, hip and vertebral. However many patients have vague symptoms such as bone pains, girdle pain and generalized weakness. Fractures may occur even without significant trauma, and be induced by a violent cough, twisting or bending movements and even getting out of bed. Osteoporosis may also be characterized by silent fractures and vertebral collapse, causing progressive loss of height and a stooped posture (dowager's hump).

Pathogenesis

Bone is an active organ. There is a constant interplay between bone modeling (formation) and remodeling (breakdown). All individuals undergo involutional (age-related) bone loss as part of normal ageing. Women in particular undergo two phases of bone loss - an accelerated phase and a slow phase. The accelerated phase occurs at the time of menopause, lasting for 4 - 8 years, and is due to oestrogen deficiency. The accelerated phase is followed by the slow phase and this phase is indefinite. It is characterized by reduced trabecular bone loss and either stable or increased cortical bone loss.4 This phase of bone loss is due to secondary hyperparathyroidism, which is a consequence of reduced calcium absorption from the gastrointestinal and renal systems.

Overall, osteoporosis ultimately affects more women than men and this is primarily due to the sex differences between the male and female skeleton.

Risk-factors

Age
Sex (Female)
Genetic factors
Race (Caucasian, Asian)
Small bone structure
Smoking
Caffeine
Alcohol
Sedentary lifestyle
Hormonal disorders (Oestrogen , thyroid)
Liver /renal disease/malabsorption
Rheumatoid arthritis

Investigations

The primary investigation for diagnosis and monitoring is BMD measurements obtained from a DEXA scan. However, when a fresh diagnosis is made, investigation may be required for underlying disease. This includes a general laboratory evaluation, including CBC, serum calcium, and tests of renal and hepatic function. In those with vertebral fractures and in those with particularly low z scores (-2 or below), an additional evaluation to exclude hyperthyroidism (thyroid-stimulating hormone [TSH]), hyperparathyroidism (PTH), 25-hydroxyvitamin D, celiac disease (transglutaminase antibody), multiple myeloma (protein electrophoresis and/or immunofixation), and renal hypercalciuria (24 hour urine calcium) should be performed. If clinically suspected, a 24-hour urine cortisol or a dexamethasone suppression test should be performed to exclude Cushing's disease.

Radigraphs : A diagnosis of osteoporosis should never be made on the basis of plain radiographs. However they may be indicated to look for silent vertebral fractures.

Prevention and management

Efforts to build up good bone mass and measures to prevent bone loss by modifying risk factors can have a major impact on the prevention of osteoporosis and subsequent fractures. Role of a few factors are discussed below:

Exercise: Weight bearing, high impact exercise is ideal for building bone mass. This includes jogging, aerobics , dancing etc. Low impact exercise is reasonable for persons who cannot do high impact activities. Non weight bearing exercises have no role in the prevention of osteoporosis.

Life-style factors: Cessation of smoking, alcohol and excess caffeine consumption has a role.

Nutrition: A well balanced diet has a positive effect on bone mass. Adequate intake of calcium (1000 - 1200mg.of elemental calcium per day) and Vitamin D (400IU per day, and up to 800 IU per day in persons older than 65 years) is recommended.

Pharmacologic agents:
Hormone replacement therapy (HRT) : Hormone therapy at the time of menopause may be beneficial for protecting bones.

The Women's Health Initiative Trial (published July 2002 and October 2003) has shown that hormone therapy as oestrogen plus progestin, does reduce the incidence of fractures at the hip and vertebrae (spinal bones) in postmenopausal women. However, long-term use of this type of hormone therapy is associated with other risks of heart disease, breast cancer, pulmonary embolism (blood clots in the lung) and deep vein thrombosis (blood clots in the leg veins). The Women's Health Initiative Trial of oestrogen alone in women who have had a hysterectomy has also shown a reduction in fracture risk along with no increase in heart disease or breast cancer, but a small increase in the risk of stroke in women aged 50 to 79 years. Although hormone therapy has beneficial effects on bone health, it should be prescribed primarily for the short-term treatment (less than 5 years) of menopausal symptoms in women who are progressing through menopause. The use of hormone therapy for disease prevention is not recommended. However, some women may elect to use hormone therapy. This needs to be done in consultation with the treating physician and with the woman understanding the risks and benefits of this therapy. It is also important to realize that hormone therapy only protects bones whilst on the treatment. Once hormone therapy is ceased, the rate of bone loss will return to the same level it was before starting hormone therapy

Selective estrogen receptor modulators: (SERMS) Two selective estrogen receptor modulators are currently being used in postmenopausal women -- raloxifene, which is approved for the prevention and treatment of osteoporosis, and tamoxifen , which is approved for the prevention and treatment of breast cancer. Tamoxifen has been shown to reduce bone turnover and bone loss in postmenopausal women when compared with placebo groups in patients with and without breast cancer. The Breast Cancer Prevention Trial showed a nonsignificant trend toward reduction in risk of nonspine fractures in healthy, postmenopausal women over 4 years of tamoxifen use. Tamoxifen is not FDA-approved for osteoporosis management. The major benefit of tamoxifen is a 45% reduction in the incidence of new, invasive, and noninvasive breast cancer in women known to be at elevated risk.

Raloxifene: Raloxifene has estrogenic agonist's effects on bone turnover and bone mass, with potency similar to that of tamoxifen. A large, randomized, controlled trial called Raloxifene Use for the Heart (RUTH) is currently under way, which will evaluate nonspine fractures as one of its many outcomes.

Raloxifene, like tamoxifen and estrogen, has effects on other organ systems. One positive effect appears to be a reduction in estrogen receptor-positive invasive breast cancer occurrence of about 65% over 4 years in women taking raloxifene compared with placebo. Furthermore, raloxifene, again similar to tamoxifen and to estrogen, increased the risk of venous thromboembolic disease about 3-fold. Raloxifene reduces serum total and low-density lipoprotein cholesterol, lipoprotein (a), and fibrinogen.

Bisphosphonates: Alendronate, risendronate , ibandronic acid and Zolandronic acid have been evaluated for prevention of fractures. They increase bone mass by 7 -10%, and reduce the incidence of fractures by 40 -50%. Once weekly dosing of alendronate and risendronate is as effective as daily dosing , and ibandronate can be administered monthly. Recent interest has been in the yearly administration of Zolandronic acid, and it has shown promise. Bisphosphonates can be used safely for 5 years.

Calcitonin: Calcitonin is a polypeptide hormone normally produced by the thyroid gland. It can be either injected or administered intranasally. No large-scale, randomized, controlled studies evaluating fracture efficacy have been done with this drug.A nasal spray containing calcitonin (200 IU/day) was approved in the United States in 1995 for the treatment of osteoporosis in late postmenopausal women. Small, randomized trials showed modest effects on bone turnover and bone density of the spine.There is no clear evidence of its use, and is now primararily used for painful vertebral fractures.

Teriparatide (recombinant human parathyroid hormone): Teriparatide is the only osteoporosis medication that increases bone formation. PTH enhances bone strength by restoring bone architecture in both cancellous and cortical bone, expanding bone size as well as improving bone mineral density.

A large, multicenter, clinical trial of teriparatide in postmenopausal women found a significant increase in bone mass at the lumbar spine (9.7%) and total hip (2.6%) as well as increases in total body bone mineral in teriparatide-treated women. There was also a significant 65% reduction in vertebral fractures and a 53% reduction in nonvertebral fractures. PTH currently must be administered by subcutaneous injection, although alternative modes of delivery are being investigated. The FDA has approved the use of teriparatide for 2 years in postmenopausal women and men at high risk for fracture.

Role of surgery
Vertebral fractures can be treated with percutaneous vertebroplasty (injection of bone cement) ,as a low morbidity and high benefit intervention . Fractures may rarely need surgery for spinal stabilization. Hip and wrist fractures need to be treated aggressively to limit morbidity.

DNA Fragmentation Test

Continued from page 06

This test is an effective method for measuring thousands of sperm in an ejaculate. Sperm are stained with a fluorescent probe that interacts with the DNA molecule. The fluorescence signal changes when the DNA is fragmented, and this is monitored using a flow cytometer. The SCSA® test has been developed over the last 20 years and is CLIA approved.

Results

The results are reported showing 3 statistical categories of fertility potential :

DNA Fragmentation Index (%DFI; % sperm cells containing damaged DNA)

< 15% DFI = excellent fertility potential

> 15 to < 30% DFI = good fertility potential

> 30% DFI = fair to poor fertility potential*

The statistically significant DFI threshold for subfertility has been established at > 30%.

Normal full-term pregnancies are possible with an elevated DFI, but the higher the level of fragmentation, the greater the incidence of reduced term pregnancies and miscarriage.

High DNA stainability (HDS; % cells with immature chromatin)

< 15% HDS = normal

> 15% HDS = above normal

Immature chromatin can be measured by high DNA stainability (HDS) and is associated with asyngamy and poor IVF fertilisation rates when it exceeds 15%.

Is ICSI treatment more effective than IVF, when the DFI value is above 30 %?

Bungum et al. (2004)(7) observed, that ICSI treatment is more likely to result in pregnancy that IVF if the DFI value was above 30 %. Bungum et al. (2007)(8) confirmed their observation from 2004 and reports that the likelihood of achieving pregnancy is 1.6 times higher for ICSI in comparison to IVF when the DFI value is above 30 %. The theoretical explanation could be that ICSI treatment removes the oxidative stress that the sperm are exposed to during passage through female reproductive tract, due to hyperactivation and acrosome reaction as well as penetration of the zona pellucida. Accordingly, ICSI treatment will lead to a better chance of pregnancy than after IUI or IVF. Other possible explanations could be that the zygote has a better ability to repair DNA fragmentation after ICSI than IVF.

Conclusion

Currently, it does not seem that the DFT will help predict those couples who are less likely to get pregnant with IVF. It is also unclear who should have the DFT test and who does not need it. Even if we believe that the test is correctly identifying couples with a lower chance for achieving pregnancy, there are no clinical trials that have ever looked at possible treatments.

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Recipe for Healthy Bones

Tarator - Cold Yogurt and Chopped Cucumber Soup (Bulgaria)

This recipe is:

- *Easy to make*
- *Economical*
- *Vegetarian*
- *Traditional dish*
- *Children love it*
- *Low in calories*
- *Calcium-rich*

Servings: 10

Preparation Time: 8 min

Course: Soup, Drink

"Tarator" is a Bulgarian national dish of historic importance that is served for lunch during the hot summer days. Over the past years it is being served more and more as a drink in glasses at the open-air cafes and bistros.

This recipe is included in the "Book of recipes for public catering" - Sofia, 2003, compiled under the coordination of Assoc. Prof. Dr. Donka Baykova, Ph.D.,M.D., National Centre of Public Health Protection

Ingredients

- 1700 gr yoghurt
- 880 gr cucumbers
- 650 gr water
- 40 gr fennel
- 40 gr parsley
- Salt

Preparation

- Whip well the yoghurt with cold water.
- Add the washed and peeled cucumbers, chopped into small cubes, the garlic crushed small, the fennel cut up into small pieces and the salt.
- Stir the mixture and cool it.

The "Tarator" can be offered by sprinkling finely chopped walnut kernels and crushed garlic over each portion.

Nutritional information (per serving)

Calcium:	450 mg
Vitamin D:	6 iu (international units)
Energy:	176 Kcalories

This bone-healthy recipe was provided by: Association 'Women without Osteoporosis'.

INDIAN COLLEGE OF OBSTETRICIANS & GYNECOLOGISTS

&

ANDROGEN EXCESS & PCOS SOCIETY

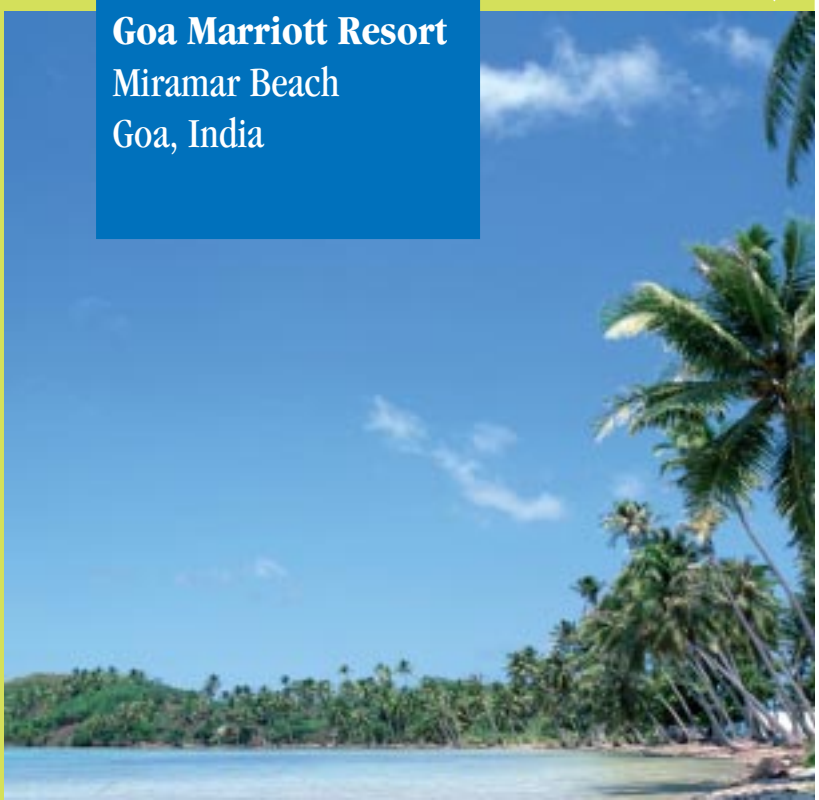
CURRENT OPINION

PCOS & The Syndrome X

PROGRAMME

March 19-21st, 2010

Goa Marriott Resort
Miramar Beach
Goa, India



INDIAN COLLEGE OF OBSTETRICIANS & GYNECOLOGISTS

ANDROGEN EXCESS & PCOS SOCIETY

PCOS & Syndrome X March 19th -21st, 2010 Goa Marriott Resort Miramar Beach Goa, India

REGISTRATION FORM

First Name: _____

Family Name: _____

Address: _____

_____

City State: _____ Zip Code: _____

Country: _____

Phone: _____ Fax: _____

E-mail: _____

Hotel: _____

Room : ( ) SGL ( ) DBL

Date of arrival :_____/_____/_____ Date of departure _____/_____/_____

Number of nights_____

Non- Residential Registration Fee: Rs. 3500/-

Fees after Feb 15th, 2010: Rs. 4500/-

Conference Package: Includes Registration + Accommodation + Breakfast at Hotel Marriott / Hotel Vaigunim for 2 nights (19th-20th March 2010)

	Twin Sharing per person		Single Room per person	
	Marriott	Vaigunim	Marriott	Vaigunim
Till 15/2/2010	12,000/-	9000/-	18,000/-	14,000/-
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Foreign Delegates (Till 15/2/2010)	$ 450	$ 300	$ 600	$ 450
AEPCOS members (Till 15/2/2010)	$ 350	$ 250	$ 500	$ 350
Foreign Delegates (After 15/2/2010)	$ 550	$ 350	$ 700	$ 500
AEPCOS members (After 15/2/2010)	$ 450	$ 300	$ 600	$ 400

No Spot Registration

All payments to be made in favour of "FOGSI" by DD or Bank Draft payable at Mumbai. Account No. S.B. A/c No 24480100012810 (Bank of Baroda) Swift Code BARBINBBOPH

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CANCELLATION AND CHANGES

Cancellations will only be accepted by written request (e-mail or fax) if received before 14th of January 2010 25 % amount will be deducted for administrative charges.

***No refund will be possible for cancellations received after February 15th 2010.**

MESSAGE

Polycystic Ovarian Syndrome is a condition which at present is untreatable, but possible to control. It spans the lifetime of a woman commencing at puberty and progress well beyond menopause. Besides the distressing symptoms of acne, hirsutism and infertility, it has tremendous long term hazards of Hypercholesterolemia, Hyperinsulinemia, Hyperandrogenemia, Hypertension, Obesity and Cancer. As primary care physicians of women, it is imperative for us to be updated with the latest scientific advances in this field. By preventing problems we will ensure that our women enjoy a better quality of life.

We welcome you to this first in the series of updates entitled "Current Opinion" on the subject of "PCOS and Syndrome X" brought to you in collaboration with the Androgen Excess and PCOS society. Both National and International experts in the field will present their current evidence based opinions on this subject. Do come and join us in the wonderful ambience of Goa, where you can learn, discuss and interact where ever you maybe in the convention center, the beach or the spa!!!

We look forward to seeing you there.

Message from ICOG Chairman Dr. Duru Shah and the ICOG Organising Team

Dr. Uday Nagarsekar *Vice Chairman* ▪ Dr. Hema Divakar *Hon. Secretary*

Dr. Mandakini Parihar ▪ Dr. Madhuri Milind Patil ▪ Dr. Nimish Pillai

As The Androgen Excess & PCOS Society enters its 8th year of existence, we are proud to report a vibrant, growing and relevant organization whose impact on the field of androgen excess and polycystic ovary syndrome (PCOS) research has been tangible and important. The society now comprises more than 300 members in more than 35 countries around the globe. These individuals enthusiastically and with dedication focus their energies and passions on understanding, diagnosing, and treating the most common endocrine disorder of women, androgen excess and PCOS, and their related sequelae.

The Society has embraced the global significance of these disorders, and partnered with a number of important organizations and journals world-wide to ensure the education of those practitioners caring for these individuals and to foster research that will allow us to predict, understand, and develop innovative therapeutic strategies. Today we are happy to be partnering with the Indian College of Obstetricians & Gynecologists (ICOG) in the AE-PCOS Societies first foray into the Indian subcontinent. We greatly appreciate our hosts' kind hospitality and that of the Indian members of the Society.

We know this will be spectacular and memorable meeting for all attending, and which will foster new research collaborations and will result in improve care of the Indian patient with androgen excess.

Ricardo Azziz
MD, MPH, MBA
Senior Executive Director
The Androgen Excess and PCOS Society

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PROGRAMME

FRIDAY, MARCH 19, 2010

Time	Programme	
2:00 onwards	▪ *Registration*	
4:30 – 5:00 pm	▪ *Welcome*	Sanjay Gupte, President FOGSI
	▪ *Learning Objectives of "Current Opinion" initiated by ICOG*	Duru shah, Chairman ICOG
	▪ *Learning Objectives on PCOS and Syndrome X*	Ricardo Azziz, Sr. Director, AEPCOS
5:00 – 5:40 pm	Chairpersons: Rohit Bhatt, P. K. Shah	
	▪ *Inaugural Lecture Polycystic Ovary Syndrome:*	Ricardo Azziz
	▪ *A Historic, and Evolutionary Perspective*	
5:40 – 6:10 pm	TEA BREAK	
6:10 – 8.30 pm	SESSION I: Metabolic Issues in PCOS	
	Chairpersons: P. K. Shekaran, Atul Munshi	
6:10 – 6:30 pm	▪ *Insulin Resistance And Its Presence*	Usha Sriram
6:30 – 6:50 pm	▪ *Metabolic Syndrome And Diabetes*	Anuja Dokras
6:50 – 7:10 pm	▪ *Role Of Metformin*	Nandita Palshetkar
7.10 – 7.30 pm	▪ *Prevention of Diabetes – Is it possible?*	Shashank Joshi
7.30 – 7.50 Pm	▪ *Pregnancy issues in Diabetes*	Sujata Mishra
7:50 – 8.30 pm	▪ *Panel Discussion – Insulin Resistance and Metabolic Syndrome*	
	Moderator: Jaideep Malhotra	
	Experts: Anuja Dokras, Nandita Palshetkar, Shashank Joshi, Sujata Mishra, Uday Thanawalla, Usha Sriram	
8:30 pm	COCKTAILS AND DINNER	

SATURDAY, MARCH 20, 2010

8:00 – 9.40 am	SESSION II: Cardiovascular Disorders in PCOS	
	Chairpersons: Shyam Desai, Geeta Ganguly	
8:00 – 8:20 am	▪ *Cardiovascular Risk in Indian women – Do genes matter?*	Ajit Menon
8.20 – 8.40 am	▪ *Appropriate Screening For Cardiovascular Risk*	Anuja Dokras
8.40 – 9.00 am	▪ *Cardiac Risk – When Should Prevention Begin?*	Enrico Carmina
9:00 – 9.40 am	▪ *Panel Discussion – Cardiac Risks in PCOS*	
	Moderator: Hema Divakar	
	Experts: Ajit Menon, Anuja Dokras, Chandrika Wijeyaratne, Enrico Carmina, Indrani Ganguly, Pankaj Desai	
9.40 – 10.10 am	TEA BREAK	
10:10 am –12:30 pm	SESSION III: Obesity and PCOS	
	Chairpersons: S. N. Daftary, Girija Wagh	
10:10 – 10.30 am	▪ *The Adipose Tissue*	Ricardo Azziz
10.30 – 10.50 am	▪ *Lifestyle Treatment "The Shaping Up" Programme*	Rina Agarwal
10.50 – 11:10 am	▪ *The fatty Liver in PCOS*	Samir Shah
11.10 – 11.30 am	▪ *Pharmacological Treatment Of Obesity*	Nalini Shah
11.30 – 11.50 am	▪ *Bariatric surgery in Obesity*	Raman Goel
11:50 am– 12:30 pm	▪ *Panel Discussion – Obesity and PCOS*	
	Moderator: Duru Shah	
	Experts: Nalini Shah, Narendra Malhotra, Raman Goel, Ricardo Azziz, Rina Agarwal, Samir Shah	
12:30 – 1:30 pm	LUNCH	
1:30 – 3:30 pm	SESSION IV: Androgen Excess in PCOS	
	Chairpersons: Adi Dastur, D. K. Dutta	
1:30 – 1:50 pm	▪ *Androgen Excess in PCOS is there an ethnic variation*	Chandrika Wijeyaratne
1:50 – 2:10 pm	▪ *Diagnosis of PCOS with a focus on the adolescent*	Enrico Carmina
2:10 – 2:30 pm	▪ *Management Of Androgen Excess*	Bruce Carr
2.30 –2.50 pm	▪ *Drosperinone in Hyperandrogenemia*	Rishma Pai

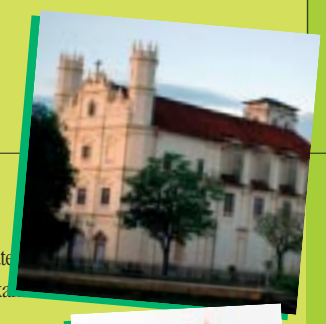
2:50 – 3:30 pm	■ *Panel Discussion – Androgen Excess and PCOS* Moderator: Sanjay Gupte Experts: Bruce Carr, Chandrika Wijeyaratne, Enrico Carmina, Nimish Shelat, Prakash Trivedi, Rishma Pai	
3:30 pm– 4.00 pm	Chairs: Parul Kotdawala, Manjula Rohatgi ■ *Best 3 E- posters presentation*	
4.00 pm	TEA BREAK	
7.30 pm onwards	Dance to the tunes of Goan Music followed by BANQUET AND DINNER	

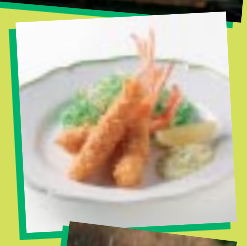
SUNDAY, MARCH 21, 2010

8:00 – 10:40 am	SESSION V – Treatment Of Infertility in PCOS Chairpersons: Mahendra N. Parikh, Rina Agarwal	
8:00 – 8:20 am	■ *An Evidence Based Strategy for Treating Infertility In PCOS*	Bruce Carr
8:20 – 8.40 am	■ *Role of Antagonists in PCOS*	Kamini Rao
8.40 – 9.00 am	■ *Recombinant Gonadotrophins in PCOS*	H. D. Pai
9.00 – 9.20 am	■ *Urinary Gonadotropins in PCOS*	Manish Banker
9.20 – 9.40 am	■ *Luteal Support in PCOS*	Jaydeep Tank
9.40 – 10.00 am	■ *Difficulties encountered in COH for PCOS*	Madhuri Patil
10.00 –10:40 am	■ *Panel Discussion – Infertility & PCOS* Moderator: Mandakini Parihar Experts: Bruce Carr, H. D. Pai, Jaydeep Tank, Kamini Rao, Madhuri Patil, Manish Banker	
10.40 – 11. 00 am	TEA BREAK	
11.00 am – 1.00pm	SESSION VI: Reproductive Tract Disorders In PCOS Chairpersons: C. N. Purandare, Hiral Konnar	
11.00 – 11.20 am	■ *Minimizing Risk Of Hyperstimulation and Multiple Pregnancies*	Sadhana Desai
11.20 – 11:40 am	■ *Endometrial Hyperplasia and DUB*	Usha Saraiya
11:40 – 12.00 noon	■ *Pregnancy Losses – Does PCOS Play a Role?*	Uday Nagarsekar
12.00 –12.20 pm	■ *Long Term Risk Of Cancer (Endometrium and Breast)*	Alka Kriplani
12.20 – 1.00 pm	■ *Panel Discussion – Reproductive Tract Disorders and Long Term Risks in PCOS* Moderator: Suchitra Pandit Alka Kriplani, Nimesh Pillai, Sadhana Desai, Tushar Kar, Usha Saraiya, Uday Nagarsekar	
1.00 pm	Concluding Remarks – Enrico Carmina and Hema Divakar	
1 .05 pm	LUNCH	

E- POSTERS INVITED

DESTINATION GOA





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International Faculty

■ Riccardo Azziz M.D., M.P.H., M.B.A	Chair, Department of Obstetrics and Gynecology Cedars – Sinai Medical Center (CSMC)
■ Enrico Carmina	Executive Director, Androgen Excess & PCOS Society
■ Anuja Dokras MD, PhD	Associate Professor, Penn Fertility Care University of Pennsylvania Medical Center
■ Bruce R. Carr M.D.	Professor and Holder, Paul C. MacDonald Distinguished Chair in Obstetrics and Gynecology Director, REI Fellowship Program, Division of Reproductive Endocrinology and Infertility
■ Rina Agarwal `	Consultant and Associate Professor in Reproductive Medicine & Obs/Gynae
■ Chandrika N Wijeyaratne MBBS, DM (Col), MD, FRCP (London), FCCP	Consultant Physician & Endocrinologist, Department of Obstetrics & Gynaecology Faculty of Medicine, University of Colombo

National Faculty

■ Ajit Menon	Consultant Cardiologist, Cumballa Hill Hospital and Lilavati Hospital, Mumbai, India
■ K. Raman Goel	Consultant Metabolic Surgeon, Bombay Hospital, Mumbai, India
■ Nalini Shah	Professor & Head, Dept of Endocrinology K.E.M. Hospital Mumbai, India
■ Samir Shah	Consultant Hepatologist, Jaslok and Breach Candy Hospital, Mumbai, India
■ Shashank Joshi	Consultant Endocrinilogist, Leelawati Hospital, Mumbai, India (The word 'A' at the beining needs to be deleted)
■ Usha Sriram	Director ACEER, Health Consultant and Endrocrinologist, Chennai, India

Eminent Faculty from ICOG & FOGSI

Adi Dastur	Kamini Rao	P. K. Shekaran
Alka Kriplani	Madhuri Patil	Rishma Pai
Atul Munshi	Mandakini Parihar	Rohit Bhat
C.N. Purandare	Manish Banker	Sadhana Desai
Dilip Kumar Dutta	Manjula Rohatgi	Sanjay Gupte
Duru Shah	M.N. Parikh	Shirish Daftary
Geeta Ganguly	NarendraMalhotra	Shyam Desai
Girija Wagh	Nimish Pillai	Suchitra Pandit
Hema Divakar	Nimish Shelat	Sujata Mishra
Hiralal Konnar	Nandita Palshetkar	Tushar Kar
Hrishikesh Pai	Pankaj Desai	Uday Nagarsekar
Indrani ganguly	Parul Kotdawala	Uday Thanawalla
Jaideep Malhotra	Prakash Trivedi	Usha Saraiya
Jaydeep Tank	P. K. Shah	

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Marriott Resort

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