



INDIAN SOCIETY FOR ATHEROSCLEROSIS RESEARCH RESEARCH - NEWS BULLETIN

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INDIAN SOCIETY FOR ATHEROSCLEROSIS RESEARCH EXECUTIVE COUNCIL 2008-2009

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Dr K.V. Pugalendhi
Dr Rosalind Marita
Dr Rajasekhar
Dr V. Mallika



Presidents Message

I have had the opportunity to be associated with the ISAR for over two decades, ever since its inception . I feel greatly honoured to have been elected as the President of the Society . I am extremely grateful to all the esteemed members of ISAR for their confidence in me and the new office bearers .

Research on atherosclerosis and CVD in the new millennium faces major challenges. The development of new tools for prevention and treatment of arterial lesions and the complications of the disease is a major challenge . New diagnostic and therapeutic techniques are under active development. Identification of genes susceptible to life style and dietary alterations is a major challenge . Human genome data offers new opportunities. Increasing knowledge on the association of inflammation with the initiation and progression of atherosclerosis has opened up new strategies for diagnosis and therapy. Although new imaging techniques offer the opportunity to assess vascular lesions, reliable noninvasive tools to assess lesion density still remain elusive. Statins and fenofibrates are now extensively used to reduce blood lipids. Treatment and management of the metabolic syndrome remain problematic. Obesity is emerging as a major public health problem.

Another major challenge, with social and economic concern for the whole world, is the impact of the shift in demographic structure of the population . With increase in the relative proportion of elderly population , the burden of cardiovascular diseases, diabetes and other chronic diseases of old age increases. The economic loss and the cost of health care also increase. Cholesterol education and other awareness programmes aimed at dietary intervention and life style modifications have been reasonably successful in certain countries; but it is yet to produce the desired impact in our country. It is particularly alarming in certain regions where the mean plasma cholesterol level has shown a steady increase over the last three decades. Lack of correlation between conventional risk factors and the early onset of the disease is a major problem to be addressed.

To meet these challenges, the ISAR will have to reorient itself. Like any other professional society , vitality and improvement require input from all the learned members. We should be able to communicate among ourselves and with the society at large, for which the senior members could provide valuable guidance and leadership. The newly launched website of ISAR should develop into an effective medium for communication. Effective interaction between basic scientists and clinicians should promote translational atherosclerosis research. More young scientists and clinical researchers should be attracted to atherosclerosis research. The next meeting of the ISAR , which is going to be held at Annamala University during 8th-10th December 2008 would , I feel , provide a good opportunity for discussing these issues and making appropriate recommendations with policy implications . Your feedback would be greatly appreciated. Let us work together to take the ISAR to greater heights.

Prof . P R . Sudhakaran



Secretary's Message

Dear Members

Thank you for your faith in electing me as the Secretary of the Indian Society of Atherosclerosis Research . I hope to be able to make a difference

There are a few factors which I wish to highlight thru this message .

1.) This society was founded in 1987 and today it has only 250 members and even fewer active members . If this society has to flourish , it definitely needs active participation of all its members (not only office members) I request all our members to encourage at least two researchers to become life members. For how new members should send their details , please see the membership icon of the website www.isar.co.in

2). The old website had become non-functional and could not be revived .The new official website is www.isar.co.in .and I usually communicate thru the bulletin board in it as well as thru individual letters . If you are not getting updates , then I do not have your correct e-mail id. Please send it

3) The newsletter 2008 can also be downloaded from the website

4) The membership directory will be printed in Dec 2008. Please see that your correct details (if incorrect on the website , membership icon) have been already sent to me .

5) Nominations for P.A.Kurup Oration Awards ,and Papers submitted for Best Paper Awards (in ISARCON 2008) should reach me by e-mail only and before 31st Oct 2008

The 20th Annual conference of Indian Society of Atherosclerosis Research was held on 22-23rd December 2007 at Sri Venkateswara Institute of Medical Sciences in the holy city of Tirupati . The Chairman ,Dr G.Subramanyam and organizing secretary ,Dr D.Rajashekhar organized a academic feast of various topics of atherosclerosis research. The conference was well attended and the organizers made sure that besides the scientific deliberations ,the delegates could have darshan of Lord Venkateshwara.

The next ISARCON (2008) is at Annamalai university .Prof .Menon has kindly agreed to host the conference . Contact Details are given in this newsletter and the detailed brochure is downloadable from the conference icon of the website

Dr Rosalind Marita from Mumbai has volunteered to host ISARCON 2009

Looking forward to working together to make our society even more dynamic and Progressive .Each member should feel free to communicate thru e-mail (mobile 9a.m 4 p.m.) for suggestions / complaints

Dr. RITU SINGH (Secretary ISAR)

M.B.B.S., M.D., F.I.M.S.A.

W.H.O. fellowship (Lab. Genetics)

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Report of XXth Annual Conference (ISARCON 2007)

The 20th Annual conference of Indian Society of Atherosclerosis Research 22-23rd December 2007

Venue : Sri Venkateswara Institute of Medical Sciences Tirumala,
Tirupati

Chairman organizing committee : Dr G Subramanyam, MD DM.

Organizing Secretary : Dr D Rajashekhar, MD, DM

Jt organizing Secretaries : Dr S.A.A.Latheef

Dr V.Vanaja

The 20th Annual conference of Indian Society of Atherosclerosis Research Was held on 22-23rd December 2007 at Sri Venkateswara Institute of Medical Sciences Tirupati .

Dr G.Subramaniam ,Director / vice-chancellor and Professor in Cardiology , in his message , emphasized the advances in genomics , proteonomics and metabolomics as tools for diagnosis and prognosis of atherosclerosis. President , ISAR, Dr S.R.Gupta praised the efforts of the organizing secretary , Dr D.Rajasekhar ,in organizing the academic feast at Tirupati .A very detailed scientific programme had been worked out to discuss all the new research developments in atherosclerosis.

Dr Venugopal Menon Head ,Annamalai University , discussed work on combination therapy with statins and resveratrol which induced cardio-protection against myocardial infarction in hypercholesterolemic rats . Dr N.Nalini described the effects of piperine on fatty acid composition and anti-inflammatory markers in hypercholesterolemic rats . Atherogenic effects of lead acetate and alcohol were discussed by Prof K.T.Augusti , from School of Medical education , Kottayam Dr G.Subramanyam and Prof. Rama Gopalan chaired the Session 1 whereas Prof. V.Mallika and Prof S.B.Sharma chaired the session on experimental atherosclerosis.

Dr Jayashree Bhattacharjee , talked on evaluation of CAD risk in post-menopausal women and Dr Nibhriti Das Highlighted the association of paroxonase activity and paroxonase gene polymorphisms with coronary artery disease in Indian Subjects. Prof Gambhir from university college of medical sciences , new Delhi while reporting higher levels of Lp(a) in CAD patients also found a decrease in Lp(a) in patients taking aspirin .Prof Subhash Kaul found a significant association between Chlamydia pneumoniae and ischaemic stroke in his work at NIMS , Hyderabad . Dr Ritu Singh from Lady Hardinge Medical College ,Delhi discussed her work on apo (A) gene Polymorphisms in essential hypertension .Prof S.R.Gupta , President ISAR gave an overview of Rimonabant in Obesity .Prof RamaGopalan from Chennai gave a talk on bio-markers in cardio-vascular disease . Dr Rosalind Marita, Mumbai , gave an interesting account of adipocyte models in drug discovery .Dr Rajashekhar shared his viewpoint of targeting non-LDL cholesterol for management of CAD. Dr V.Vanajakshamma gave a talk on statins whereas Prof Sudhakaran discussed the targeting of transcription factors against vascular pathology

Numerous free papers of a high level of research were part of the academic feast .

The conference was well attended and gave a common platform for the clinicians, students and scholars to learn, share and exchange up-dated knowledge of the challenges and opportunities for diagnosis , prevention and treatment of cardiovascular diseases in India.

The General Body meeting was held on 23rd December 2007 at Tirupati. Elections took Place and the new office bearers were elected.

Dr V.P.Menon volunteered to organize ISARCON 2008 at Chidambaram and Dr Rosalind Marita volunteered to organize ISARCON 2009 .This was accepted by the GBM.



ROLE OF CHLAMYDIA PNEUMONIAE IN VARIOUS SUB-GROUPS OF ISCHEMIC STROKE

Subhash Kaul, VCS Bhandaru
Dept. of Neurology, NIIMS, Hyderabad

Background and objective : There have been many reports in the last decade about the association of Chlamydia pneumoniae (C.pneumoniae) and atherosclerosis involving heart and brain. Since infections in general occur in higher frequency in India compared to western countries, we set out to investigate whether the frequency of Chlamydia pneumoniae pathogen and specific circulating immune complex is higher in patients with ischemic stroke compared to controls. Since ischemic stroke occurs by more than one mechanism, we also investigated the association of Chlamydia pneumoniae organism with various subtypes of ischemic Stroke. There is no data available in this subject from India.

Design : Prospective descriptive case - control study.

Methods : From January 2004 to June 2006, we investigated 200 patients of ischemic stroke registered consecutively in stroke data bank of our department of Neurology (along with 200 age and sex matched controls without history of stroke and TIA. Specific antibodies (IgG and IgA) to Chlamydia pneumoniae in serum were measured by micro immunofluorescence test in cases as well as control subjects. All stroke patients under study underwent Ct, MRI, MRA and Carotid artery Doppler for stroke subtyping diagnosis. Logistic regression analysis was done to estimate odds ratio and 95% confidence intervals (95% CI) for matched case-control comparison after adjustments for potential confounders.

Results : The prevalence of Chlamydia pneumoniae was significantly higher in stroke patients i.e 72/200 (36%) when compared to control subjects i.e 35/200 (17.5% ($p=0.0021$). Among stroke patients, IgG antibody was positive in 52/200 (26%), IgA was positive in 8/200 (4%) and both IgG and IgA were positive in 12/200 (6%). In control group, IgG antibody was positive in 34/200 (17%) and IgA was positive in 1(0.5). The prevalence of Chlamydia pneumoniae in different stroke subgroups classified according to TOAST criteria was : Large artery atherosclerosis of other determined etiology 5(6.9%), Stroke of other undetermined etiology 3 (4.1%) Logistic regression analysis showed statistically significant association of Chlamydia pneumoniae antibody in large artery atherosclerosis, cardioembolism, and small artery atherosclerosis in comparison with stroke of undetermined etiology.

Intima-media thickness (IMT) was found to be significantly more ($p=0.026$), odds ratio 5.95 % CI (1.7-15), in patients with antibodies to Chlamydia pneumoniae.

Conclusion : We found significant association between Chlamydia pneumoniae and ischemic stroke in a sample of Indian population. this is the first study on this subject from India.



EVALUATION OF CAD RISK IN POSTMENOPAUSAL WOMEN

Jayashree Bhattacharjee

Deptt. of Biochemistry, L.H.M.C, New Delhi, India

Background : Two fold age related increased risk of Coronary artery disease (CAD) is predicted for postmenopausal women as compared to premenopausal women. This greater risk has been related to the female sex hormone : oestrogen. Chronic exposure to estradiol has been shown to up regulate gene expression of endothelial nitric oxide synthase (eNOS) enzyme thereby increasing nitric oxide (NO) production - which has several cardio protective actions as vasodilation, inhibition of platelet aggregation & adhesion. eNOS gene polymorphism-Glu298 Asp polymorphism is associated with CAD risk.

Our purpose of study was to assess CAD risk in postmenopausal women by evaluating Nitric oxide - Cyclic GMP signal transduction pathway & screening Glu298 polymorphism which is associated with greater cardiac risk along with other established CAD risk markers for the purpose of early diagnosis and intervention.

Materials & Methods : Two consecutive studies were conducted. Each study design consists of 50 postmenopausal women cases compared with 50 premenopausal women controls for similar age group excluded for any CAD risk. In the first study we measured the levels of NO, Estrogen, apo-B and functional relation of NO and cGMP to evaluate signal transduction pathway. The second study was done to investigate the associated role of Glu-Asp298 eNOS gene polymorphism & platelet function in increasing postmenopausal CAD risk.

Result : Plasma NO, Estrogen and HDL levels was found to be significantly lower ($P < 0.05$) while VLDL and Apo-B levels showed significant increase ($p < 0.05$) in Postmenopausal women cases as compared to premenopausal women controls. Plasma cGMP levels were significantly lower ($P < 0.05$) in cases than controls. The levels of NO were not associated with plasma MDA in any group.



COMBINATION THERAPY WITH STATIN AND RESVERATROL INDUCES CARDIOPROTECTION AGAINST MYOCARDIAL INFARCTION IN HYPERCHOLESTEROLEMIC RATS

Venugopal P. Menon,

Professor and head, Department of Biochemistry and Biotechnology
Dean, Faculty of Science, Annamalai University, Annamalai Nagar 608 002
Tamil Nadu, India

Hypercholesterolemia (HC) induced endothelial cell dysfunction and decreased endothelial nitric oxide formation results in impaired angiogenesis & subsequent cardiovascular disorders. Previous studies have shown that both statin (S) and resveratrol (R) offers cardioprotection through nitric oxide-dependent mechanism. Therefore, the present study was undertaken to determine whether combination therapy with statin and resveratrol is more cardioprotective than individual treatment groups in ischemic rat heart model. the rats were fed with 2% high cholesterol diet and after 8 weeks of high cholesterol diet the animals were treated with statin (1 mg/kg bw/day) and resveratrol (20 mg/kg bw/day) for 2 weeks. The rats were assigned to : (1) Control (C), (2) HC, (3) HCR, (4) HCS and (5) HCRS. the hearts, subjected to 30-min global ischemic followed by 120-min reperfusion were used as experimental model. the left ventricular functional recovery (+dp/dtmax) was found to be significantly better in the HCRS (1926±43), HRC (1556±65) and HCS (1635±40) compared to HC group (1127±16). The infarct sizes in the HCRS, HCS and HCR groups were 37±3.6, 43±3.3 and 44±4.2 respectively compared to 53±4.6 in HC. The lipid level was found to be decreased in all the treatment groups when compared to HC and more significantly in HCS and HCRS groups when compared to HCR. Increased phosphorylation of Akt and eNOS was also observed in all the treatment groups resulting in decreased extent of cardiomyocyte apoptosis but the extent of reduction in apoptosis was more significant in HCRS group compared to all other groups. In vivo rat myocardial infarction (MI) model subjected to 1 week of permanent left descending coronary artery (LAD) occlusion documented increased capillary density in HCR and HCRS treated group when compared to HCS treatment group. Increased Bcatenin translocation and VEGF mRNA expression was also observed in all treatment groups thus, we conclude that the acute as well as chronic protection afforded by combination treatment with statin and resveratrol may be due to pro-angiogenic, anti-hyperlipidemic and anti-apoptotic effects and long-term effects may be caused by increased neo-vascularization leading to less ventricular remodeling of the ischemic hypercholesterolemia myocardium.



INDIAN SOCIETY FOR ATHEROSCLEROSIS RESEARCH
Dept. of Biochemistry, Lady Hardinge Medical College, New Delhi -110001

APPLICATION FORM FOR MEMBERSHIP

1. Full Name: Dr. /Mr./Mrs.
Surname Middle Name First Name
2. Designation
3. Office Address
.....Pin.....
Phone No.E.Mail (must be given)
5. Academic Qualifications
6. Student Yes/No
7. Experience in the field of Atherosclerosis Research

8. Recommended by

Date

Signature of the Applicant.....

Life membership (LM) Fee

Patron / NRI Rs. 5300/-
Life member Rs. 1300/-

Annual membership

Annual Rs. 100/-
Student Rs. 50/-

(Please note Rs.300/- has to be given every 2 yrs by all life members for membership of international Atherosclerosis society .)

- Note : 1.) **Cheque /DD Payable to Treasurer, ISAR**
2.) **Add Rs. 50/- for outstation cheque**

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Oration Awards

ORATIONS

Nominations are invited for Dr. P.A. Kurup Oration (basic Research in Atherosclerosis) to be held in the forthcoming annual conference of ISAR.

Scientists who have contributed significantly to atherosclerosis research may be nominated by life members of the society for the oration awards. The scientist nominated must have been a member of ISAR for a continuous minimum period of 5 years. Following information to be sent to the secretary ISAR Dr. Ritu Singh via e-mail before Oct. 31st, 2008

1. Biodata of the nominee
2. Abstract of oration (about 120 words)
3. ISAR membership status of the nominee
4. Recommendations from the nominator

Nominee if selected, will be required to provide, in triplicate a full oration manuscript before November 30, 2008 which will be published after the conference. The awards of oration will receive in appreciation of his/her contribution a plaque and a certificate. His/her local hospitality will be borne by ISAR Conference Committee

BEST PAPERS

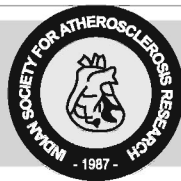
(AWARDS FOR RESEARCH PAPERS)

Two medals for best papers in the following will be awarded at 21st ISARCON-2008

1. Balaji Endowment Medal = Basic experimental research on atherosclerosis.
 2. Sri Venkateswara Cardiac Research Medal - Clinical research on atherosclerosis and allied aspects.
- Criteria for awards
1. The candidate should be a member of the society for at least two years.
 2. He/she should be first author of the paper.
 3. The work should have been carried out in India and should be original in content. Basic research work on atherosclerosis will be considered for Balaji Endowment Medal and clinical research work on atherosclerosis and allied aspects will be considered for Sri Venkateswara Cardiac Research Medal 4. The author should indicate whether the paper should be considered for award on basic research or clinical research.
 4. The awardee should be 35 years of age or less, and working in an organization for a minimum period of 3 years.
 5. He/she should obtain a certificate for the Head of the Institute/Department that the work was primarily carried out by the applicant. The paper should not have already been published in any scientific journal. However, the authors will be free to publish the paper elsewhere after presentation, provided it is acknowledged that the paper was presented at the Annual meeting ISAR. Only the abstract of the paper will be prepared in the proceedings of the society.
 6. A member who has won the medal against a particular award would not be eligible for second time, although such a member can be a co-author of a paper for the subsequent award.
 7. No member can present more than one paper for the award.
 8. The abstract of not more than 200 words indicating the name of the medal for which it is submitted at the top of the paper should be sent to Dr. Ritu Singh, Secretary, Indian Society for Atherosclerosis Research, by e-mail only.
 9. The paper submitted for the award will be screened and judged by a panel of three judges.
 10. The decision of the panel of judges will be final and binding on all concerned.
 11. The papers so selected for awards will be presented at the Annual Meeting of the Society and 15 minutes will be given to each paper for presentation.
 12. In case the award is not given to a paper after oral presentation, a certificate of merit would be given.

TRAVEL GRANTS

Five students will be awarded travel agent on the basis of merit of their paper by Dr. S. Biswas, HOD-Biochemistry, Nagpur University. They will be judged during conference presentation.



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ANNOUNCEMENT

All the speakers of ISARCON 2008 are requested to send their full papers to the secretariat in Delhi for publication in the proceedings of the conference 'Advances in Atherosclerosis'

The papers received till 30th January 2009 in an e-version will be incorporated in the publication

They should be mailed to the Secretary, ISAR at the mail address driritusingh@rediffmail.com, mail2rs@indiatimes.com

FORTH-COMING CONFERENCES

- 15th International Symposium on Atherosclerosis (ISA 2009)
June 14 to 18, Boston, USA
- International conference on advances in free radical research and 8th annual meeting of the society of free radical research - India
March 19-21, 2009 CSM Medical University & Era's Lucknow Medical College, LUCKNOW. e-mail draamahdi@hotmail.com, Website www.sfrlko2009.com
- 60th Annual Conference of Cardiological Society of India
4-7th Dec. 2008, Chennai
e-mail dr.mscsi2009@yahoo.com, drmscsi2008@gmail.com

ISARCON 2008

21st ANNUAL CONFERENCE OF THE INDIAN SOCIETY FOR ATHEROSCLEROSIS RESEARCH

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Dr. T. Balasubramanian Director, CAS in Marine Biology
Convenors : Dr. K. V. Pugalendi
Dr. N. Nalini

Website link for brochure ; <http://www.isar.co.in/conferences.html>



ISARCON 2005

ISARCON 2006



ISARCON 2007



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Tirumala Tirupati Devasthanams**