NEWSLETTER

July 2016 Edition

INDIAN SOCIETY FOR ATHEROSCLEROSIS RESEARCH

AN OFFICIAL PUBLICATION OF INDIAN SOCIETY FOR ATHEROSCLEROSIS RESEARCH (ISAR)

Dear Members,

It is my first communication after assuming the post of the president of the ISAR. I am deeply touched by the confidence that you have reposed in me. I thank all the members for bestowing this honor by nominating me as the president of our association for 2017- 2018. The Indian Society for Atherosclerosis Research (ISAR) was founded in 1987. The aim of the society is to bring all eminent scientist and researchers engaged in this area on a common platform to work together on various facts of atherosclerosis. It is my proud privilege to be associated with this society from 1998. I served the society in various capacities and always tried to contribute to the growth of this prestigious society. On behalf of ISAR, honorary membership has been conferred to many eminent scientists working in India and abroad on atherosclerosis during ISARCON 2015 at Jamia Hamdard University, New Delhi, a great honor for our society. Tremendous advances have been made in the various fields of medicine and I am happy to note that we are striving to keep abreast of them. It is also essential that we optimally utilize the incompletely tapped potential of our young investigators and encourage them to take part in the deliberations in large numbers.

Long live ISAR!

DR. (MRS) S.B .Sharma
President-ISAR
Director- Professor
Dept. of Biochemistry
University College of Medical Sciences - Delhi

Dear Friends,

Greetings from Indian Society for Atherosclerosis Research!

I am extremely happy to make my first communication to you after getting elected as Secretary of this esteemed organization.

I feel fortunate to have dynamic visionaries Prof. SB Sharma, Prof. Ritu Singh, Prof. Anupam Prakash, Prof. Jayashree Bhattacharya, Prof. Jagriti Bhatia, Prof. Nalini Namasivayam, Prof. Shridhar Dwivedi, Prof. DK Srivastava, Prof. ME Yeolkar, Prof. Rama Gopalan and other office bearers to guide me.

We have a new website with regular updates and we plan to sync it with IAS. The new website is smart phone friendly for easy access. Many new members have been added and I request you for membership drive with new vigor. An updated members' directory is in process to be circulated to each member.

Two chapters are now part of ISAR family (Delhi and Bihar). I believe that the Chapters through their various activities will spread the message and goals of ISAR across their domain. It shall be our endeavor this year to see that more states in the country have a chapter of ISAR

I invite you all for next conference in Kochi under the able organization of Dr. Anil. I hope we all shall make it a success to remember.

I shall be in touch regularly through email and sms. I sincerely welcome your suggestions and guidance in further work.

As Secretary, I am aware of the huge responsibility that I have and tremendous amount of work that remains to be done. I will try my very best to live up to the faith reposed in me and will draw inspiration from all my esteemed predecessors to fulfill the responsibility.

Long live ISAR!

DR. AMITESH AGGARWAL
Secretary, ISAR

Dear ISAR colleagues and readers,

It is indeed a great honor to be the Newsletter Editor for the ISAR and it is an immense pleasure to launch this first edition of ISAR Newsletter for 2016.

Welcome to the issue no. XVII of the ISAR Newsletter!

As the editor, I endeavored to balance articles and news from various fields on atherosclerosis ranging from basic research to clinical work and activities in order to cater to the needs of all the ISAR stakeholders. I have tried to create a compilation to keep the members updated on the latest society news and on the current trends in this field.

In the present issue, the newsletter covers a report on ISARCON 2015, a few photographs from ISARCON 2014, latest articles from journals and newspaper snippets on the latest news covering atherosclerosis. The Newsletter also includes a small write up on the honorary membership bestowed upon the five great scientists who have made immense contributions in this field, world over.

I would take this opportunity to thank all who have contributed in writing the wonderful and inspiring articles. ISAR Newsletter values your efforts and I look forward to your continuous support. I welcome your articles, photographs and inputs for the next edition, slated to be released in January –February 2017.

I hope that you will find this issue informative and useful and enjoy reading it.

DR. PARUL GOYAL

Editor

Associate Professor, Biochemistry

PGIMER-Dr RML Hospital, New Delhi

1 HONORARY – MEMBERS OF ISAR

(Scientists of Eminence in India/Abroad)

The Indian Society for Atherosclerosis Research (ISAR) has conferred the honorary membership to various eminent scientists, in India and outside, who have made immense contribution in the field of atherosclerosis and other scientific research. A brief and inspirational body of work of these esteemed scientists and researchers is here for all the members.

DR. GIRISH SAHNI
Director General &Secretary, DSIR, Govt. of India
Council of Scientific and Industrial Research
Anusandhan Bhawan, 2, Rafi Marg, New Delhi-11001

Dr. Girish Sahni is the Director General of the Council of Scientific and Industrial Research (CSIR) and Secretary of the Department of Scientific & Industrial Research (DSIR). He was formerly the Director of the Institute of Microbial Technology (CSIRIMTECH), Chandigarh, India & has successfully generated, and transferred to industry, several bio-technologies. Dr Sahni acquired his Ph.D. in 1984 from the Indian Institute of Science (IISc) Bengaluru. His illustrious career included tenures at Albert Einstein College of Medicine, Rockefeller University and the University of California all in the US.

Dr Sahni has specialized in biotechnology, molecular biology, and protein engineering. As part of a team, he developed the country's first ever indigenous clot buster drug – natural streptokinase as well as recombinant streptokinase. This life-saver drug has been patented globally. Lately a team spearheaded by him produced fourth-generation 'Anti-thrombotic' clot busters.

Dr. Sahni enjoys international recognition for his research efforts and has authored many landmark papers and has a host of national and international patents in his repertoire. Dr. Sahni's contributions have been recognized through various scientific and industrial awards, such as the Vasvik award, Government of India's Biotechnology Process Development and Commercialization Award, the Ranbaxy Research Award and the CSIR Technology Shield for Process Development.

Dr. GN QAZI
Vice Chancellor, Jamia Hamdard
Fellow Biotech research Society of India
Ex. Director, Indian Institute of Integrated Medicine, Jammu

Dr. G. N. Qazi, joined Jamia Hamdard (Hamdard University) as Vice Chancellor on October 13, 2008. He has obtained his Masters and PhD degrees respectively in Biochemistry and a Microbiology from M.S. University (Baroda) and Post-Doctoral training from the University of Dortmund (Germany). He has in his credit more than 40 years of research experience in the areas of Biochemistry, Microbial Biotechnology, Bio-prospecting of Natural Products and clinical validation studies for Indian classical drugs. He has been for more than 30 years in a leadership position and groomed scores of scientists and technocrats in the area of his core-competence. He has more than 250 international publications and about 70 international patents to his credit. He guided 35 scholars leading to PhD degrees of 12 Universities in India and Germany where he did his Post-Doctoral research. He led several international collaborations during his career with CSIR and finally steered one of the five Regional Research Laboratories as a senior Director for over eight years since May 2000.

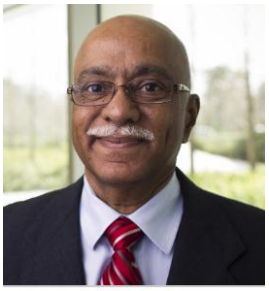
Dr. Qazi is presently the Chairman of Drugs and Pharmaceutical Research programme of the Govt. of India, the Chairman Unani Pharmacopeia committee and the member Pharmacopeia commission for AYSH drugs.

M. MAHMOOD HUSSAIN
Distinguished Professor
Dept of Cell Biology, SUNY Downstate Medical Centre,
Brooklyn, New York, USA

Dr. M. Mahmood Hussain is a professor of cell biology at State University of New York, Downstate Medical Center, and an expert in lipid biology and cardiovascular disease. He has been named a Distinguished Professor by the Board of Trustees of the State University of New York, in what is the highest academic accolade conferred by the institution.

Dr. Hussain, also editor-in-chief of Nutrition and Metabolism, is one of 19 members across the S.U.N.Y. system to be thus ranked. The designation is given to professors who have achieved national and international prominence and a distinguished reputation in their chosen field, and Dr. Hussain certainly deserves the distinction.

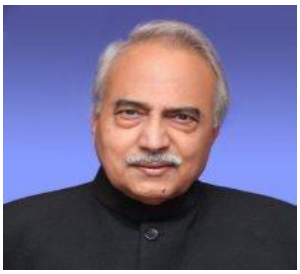
Throughout his auspicious career, he has made many important inroads into the molecular and cellular biology of how the hepatic and small intestinal cells provide lipid metabolism, in order to find better treatments to lower high plasma cholesterol levels. His work has received many institutional and national awards, he has spoken at and organized international conferences, and has given more than two decades of continuous support to many agencies, including the National Institute of Health.



SAMPATH PARTHASARATHY
University of Central Florida,
Orlando, FL

Dr. Parthasarathy , is an internationally known cardiovascular scientist who holds the UCF College of Medicine's Florida Hospital Endowed Chair in Cardiovascular Sciences and is Associate Director for Research at the college's Burnett School of Biomedical Sciences. Before joining the College of Medicine, Dr. Parthasarathy held the Klassen Chair of Cardiac Surgery and Professor of Surgery at Ohio State University, where he was also a professor of Internal Medicine and Human Nutrition.

Dr. Parthasarathy is a recognized expert in lipids and lipoproteins, credited with the co-discovery of a major cardiovascular concept—the fact that oxidized LDL cholesterol blocks arteries in the heart, leading to atherosclerotic diseases. His areas of interest include arteriosclerosis, cardiovascular nutrition and heart failure. Dr. Parthasarathy has published over 250 original articles and has written a book "Modified Lipoproteins in the Pathogenesis of Atherosclerosis." He received his doctorate in biochemistry from the Indian Institute of Science in Bangalore, India, has served on a variety of journal editorial boards and was a member of National Heart, Lung and Blood Institute of the NIH Program Project Committee. He has received numerous awards for his contributions to medical science including a special recognition award by the American Heart Association ,and has over 20 patents on cardiovascular pharmaceuticals. He has received numerous awards. Dr. Parthasarathy has a breadth of research experience, including studies on endometriosis, aspirin therapy and heart disease related to diabetes.



GUNDU H.R RAO
Emeritus Professor, Lillehei Heart Institute,
Laboratory Medicine and Pathology,
University of Minnesota, USA
Founder CEO, South Asian Society on
Atherosclerosis and Thrombosis, The Medi City, New Delhi, India

Gundu H. R. Rao is an Emeritus Professor at the Lillehei Heart Institute, University of Minnesotaand Honorary Professor, Rajiv Gandhi University of Health Sciences, Bangalore. He has Three decades of research experience in the field of Thrombosis and Hemostasis He has over 350 peer-reviewed publications. He is on the advisory board of many preventive cardiology journals. He is the founder CEO of SASAT and International Society For Prevention of Atherosclerosis and Thrombosis, Global Alliance for Traditional Health Systems (GATHS), Mind-Body Spirit Society of India (MBSSI). Director, Indus Biomedical Associates, Adhwaya Health Tech, and Health Reach. Scientific Adviser: North American Thrombosis Forum, USA and International Union of Angiology, France, Senior Editor J. Clinical and Applied Thrombosis Hemostasis, USA, Journal of Preventive Cardiology, Journal of Clinical and Preventive Cardiology.

His Specialties include Thrombosis Research; primary and secondary prevention of obesity, hypertension, metabolic syndrome, type-2 diabetes, heart disease and stroke.

Currently Chief Technology Officer (CTO) at Stellixir Biotech. Pvt. Ltd, Bangalore

Gastroenterology

Administration of Antibiotics to Children Before Age 2 Years Increases Risk for Childhood Obesity

Frank I. Scott, MD MSCE, Daniel B. Horton, MD, MSCE, Ronac Mamtani, MD MSCE, Kevin Haynes, PharmD MSCE, David S. Goldberg, MD MSCE, Dale Y. Lee, MD MSCE, James D. Lewis, MD MSCE

Article in Press

ABSTRACT

Childhood obesity is increasing and is associated with adult obesity. Antibiotics have been used to promote weight gain in livestock for several decades. Antibiotics are commonly prescribed for children, but it is not clear how exposure to antibiotics early in life affects risk for obesity. We performed a population-based cohort study to assess the association between antibiotic exposure before age 2 years and obesity at age 4 years.

In the cohort, 1306 of the children (6.4%) were obese at 4 years of age. Antibiotic exposure was associated with an increased risk of obesity at 4 years (odds ratio [OR]=1.21; 95% confidence interval [CI], 1.07–1.38). Odds ratios increased with repeated exposures: for 1–2 prescriptions, OR=1.07 (95% CI, 0.91-1.23); for 3–5 prescriptions, OR=1.41 (95% CI, 1.20–1.65); for 6 or more prescriptions, OR=1.47 (95% CI, 1.19–1.82). Antifungal agents were not associated with obesity (OR=0.81; 95% CI, 0.59–1.11).

Administration of 3 or more courses of antibiotics before children reach an age of 2 years is associated with an increased risk of early childhood obesity

Body-Mass Index in 2.3 Million Adolescents and Cardiovascular Death in Adulthood

Gilad Twig, M.D., Ph.D., Gal Yaniv, M.D., Ph.D., Hagai Levine, M.D., M.P.H., AdiLeiba, M.D., M.H.A., Nehama Goldberger, M.Sc., Estela Derazne, M.Sc., Dana Ben-Ami Shor, M.D., DoritTzur, M.B.A., ArnonAfek, M.D., M.H.A., Ari Shamiss, M.D., M.P.H., ZionaHaklai, M.A., and Jeremy D. Kark, M.D., Ph.D.

April 13, 2016DOI: 10.1056/NEJMoa1503840

ABSTRACT

In light of the worldwide increase in childhood obesity, we examined the association between body-mass index (BMI) in late adolescence and death from cardiovascular causes in adulthood.

A BMI in the 50th to 74th percentiles, within the accepted normal range, during adolescence was associated with increased cardiovascular and all-cause mortality during 40 years of follow-up. Overweight and obesity were strongly associated with increased cardiovascular mortality in adulthood. (Funded by the Environment and Health Fund.)

Diabetes Care

Randomized Summer Camp Crossover Trial in 5- to 9-Year-Old Children: Outpatient Wearable Artificial Pancreas Is Feasible and Safe

Simone Del Favero, Federico Boscari, MirkoMessori, IvanaRabbone, Riccardo Bonfanti, Alberto Sabbion, Dario Iafusco, Riccardo Schiaffini, Roberto Visentin, Roberta Calore, Yenny Leal Moncada, Silvia Galasso, Alfonso Galderisi, Valeria Vallone, Federico Di Palma, EleonoraLosiouk, Giordano Lanzola, DavideTinti, Andrea Rigamonti, Marco Marigliano, Angela Zanfardino, Novella Rapini, Angelo Avogaro, Daniel Chernavvsky1, LaloMagni, Claudio Cobelli and Daniela Bruttomesso

Diabetes Care 2016 May; dc152815. http://dx.doi.org/10.2337/dc15-2815

ABSTRACT

The Pediatric Artificial Pancreas (PedArPan) project tested a children-specific version of the modular model predictive control (MMPC) algorithm in 5- to 9-year old children during a camp.

Overnight time-in-hypoglycemia was reduced with the AP versus SAP, median (25th–75th percentiles): 0.0% (0.0–2.2) vs. 2.2% (0.0–12.3) (P = 0.002), without a

significant change of time-in-target, mean: 56.0% (SD 22.5%) vs. 59.7% (21.2%) (P = 0.430), but with increased mean glucose 173 mg/dL (SD 36) vs. 150 mg/dL (SD 39) (P = 0.002). Overall, the AP granted a threefold reduction of time-in-hypoglycemia (P < 0.001) at the cost of decreased time-in-target, 56.8% (SD 13.5) vs. 63.1% (SD 11.0) (P = 0.022) and increased mean glucose 169 mg/dL (SD 23) vs. 147 mg/dL (SD 23) (P < 0.001).

This trial, the first outpatient single-hormone AP trial in a population of this age, shows feasibility and safety of MMPC in young children. Algorithm retuning will be performed to improve efficacy.

Shared genetic susceptibility of vascular-related biomarkers with ischemic and recurrent stroke.

Williams SR, Hsu FC, Keene KL, Chen WM, Nelson S, Southerland AM, Madden EB, Coull B, Gogarten SM, Furie KL, Dzhivhuho G, Rowles JL, Mehndiratta P, Malik R, Dupuis J, Lin H, Seshadri S, Rich SS, Sale MM, Worrall BB; METASTROKE, The Genomics and Randomized Trials Network (GARNET) Collaborative Research Group.

Neurology. 2016 Jan 26;86(4):351-9. doi: 10.1212/WNL.0000000000002319. Epub 2015 Dec 30.

ABSTRACT

To investigate the genetic contributors to cerebrovascular disease and variation in biomarkers of ischemic stroke.

The Vitamin Intervention for Stroke Prevention Trial (VISP) was a randomized, controlled clinical trial of B vitamin supplementation to prevent recurrent stroke, myocardial infarction, or death. VISP collected baseline measures of C-reactive protein (CRP), fibrinogen, creatinine, prothrombin fragments F1+2, thrombin-antithrombin complex, and thrombomodulin prior to treatment initiation. Genome-wide association scans were conducted for these traits and follow-up replication analyses were performed.

Our data identify a genetic contribution to inflammatory and hemostatic biomarkers in a stroke population. Additionally, our results suggest shared genetic contributions to circulating CRP levels measured poststroke and risk for incident and recurrent ischemic stroke. These data broaden our understanding of genetic contributors to biomarker variation and ischemic stroke risk, which should be useful in clinical risk evaluation.

Association between Insulin Monotherapy versus Insulin plus Metformin and the Risk of All-Cause Mortality and Other Serious Outcomes: A Retrospective Cohort Study

Sarah E. Holden, Sara Jenkins-Jones, Craig J. Currie; Published: May 6, 2016

ABSTRACT

To determine if concomitant metformin reduced the risk of death, major adverse cardiac events (MACE), and cancer in people with type 2 diabetes treated with insulin.

12,020 subjects treated with insulin were identified, including 6,484 treated with monotherapy. There were 1,486 deaths, 579 MACE (excluding those with a history of large vessel disease), and 680 cancer events (excluding those in patients with a history of cancer). Corresponding event rates were 41.5 (95% CI 39.4–43.6) deaths, 20.8 (19.2–22.5) MACE, and 21.6 (20.0–23.3) cancer events per 1,000 person-years. The adjusted hazard ratios (aHRs) for people prescribed insulin plus metformin versus insulin monotherapy were 0.60 (95% CI 0.52–0.68) for all-cause mortality, 0.75 (0.62–0.91) for MACE, and 0.96 (0.80–1.15) for cancer. For patients who were propensity-score matched, the corresponding aHRs for all-cause mortality and cancer were 0.62 (0.52–0.75) and 0.99 (0.78–1.26), respectively. For MACE, the aHR was 1.06 (0.75–1.49) prior to 1,275 days and 1.87 (1.22–2.86) after 1,275 days post-index.

People with type 2 diabetes treated with insulin plus concomitant metformin had a reduced risk of death and MACE compared with people treated with insulin monotherapy. There was no statistically significant difference in the risk of cancer between people treated with insulin as monotherapy or in combination with metformin.

3 NEWSPAPER CLIPS

HealthDay
News for Healthier Living

Fruit Every Day Might Help Your Heart, Researchers Say

Lower risk of heart attack, stroke seen in Chinese study

WEDNESDAY, April 6, 2016 (HealthDay News) -- Eating fresh fruit regularly may help prevent heart attacks and strokes, a large study out of China suggests.

Adults who ate fresh fruit, such as apples and oranges, every day had about a one-third reduced risk of dying from a heart attack or stroke, compared to those who rarely or never ate fruit, researchers found.

"Fruit consumption is important for your cardiovascular health," said lead researcher Dr. Liming Li, vice president of the Chinese Academy of Medical Sciences, in Beijing.

Study participants who ate fruit most often had lower blood pressure and blood sugar than less frequent fruit eaters, which may account for the reduced risk for heart attacks and strokes, Li said.

Due to the nature of the study, however, it could not prove that fruit consumption caused the lower risk of heart attack and stroke, just that there was an association, Li said.

TIME

The Bionic Pancreas Is Getting Closer to Reality

Ed Damiano The iLet

The invention could seriously change the management of type-1 diabetes

The race is on for what may be the biggest innovation in decades for Type 1 diabetes management—the bionic pancreas— one of the lead researchers in the field announced at the Endocrine Society's annual meeting that he's launched a company to bring that invention to market.

As TIME previously reported, Damiano, a professor of biomedical engineering at Boston University who is developing a bionic pancreas (also referred to as the artificial pancreas),was inspired to make the device when his son David was diagnosed with diabetes as an infant. He wants the device on the market by the time David, now 16, goes off to college.

Damiano's device, called the iLet, takes blood sugar readings every five minutes, and depending on blood-sugar levels, releases insulin to bring the sugar down or another hormone called glucagon to bring it back up, keeping blood sugar steady throughout the day.

Damiano says they will likely have an insulin only version of the iLet approved in 2018 with the full system approved soon after that. Beta Bionics plans to begin its final pivotal clinical trial of the device in the middle of 2017.

Medical News Today

Heart disease risk may be increased with air pollution exposure

Written by Honor Whiteman ***Published:*** *Wednesday 25 May 2016*

The risk of heart disease may be higher with greater exposure to air pollution, especially for people with diabetes. This is the conclusion of a new study published in the *Journal of Clinical Endocrinology & Metabolism*.

Higher air pollution exposure may raise the risk of heart disease, suggests new research.

Senior author Dr. Victor Novack, of Soroka University Medical Center and Ben-Gurion University in Beer Sheva, Israel, and colleagues found that air pollution exposure can increase blood sugar, cholesterol levels, and other factors that may raise heart disease risk.

For their study, the team analyzed the data of 73,117 adults living in southern Israel, where particulate matter (PM) - pollution that is made up of very small particles and liquid droplets - is high.

All participants were either smokers, or had been diagnosed with diabetes, ischemic heart disease, high blood pressure, or high low-density lipoprotein (LDL) cholesterol and/or triglyceride levels - known as dyslipidemia.

By analyzing more than 600,000 blood samples from the participants, the researchers found that exposure to higher average levels of PM in the previous 3 months was associated with an increase in heart disease risk factors.

Specifically, they found that, compared with participants with lower PM exposure, those with higher PM exposure had greater increases in blood glucose levels, LDL cholesterol levels - known as "bad" cholesterol - and triglyceride levels. Triglycerides are a type of fat in the blood.

Furthermore, greater PM exposure was associated with lower levels of high-density lipoprotein (HDL) cholesterol, which is the "good" cholesterol.

It was cumulative exposure to PM over a 3-month period that was linked to increased risk factors for heart disease.

After a heart attack, people more likely to take statins as directed

Published May 31, 2016
Reuters

People may do a better job of following doctors' orders to take statin drugs - prescribed to protect against cardiac problems - after they wind up hospitalized for a heart attack, a large study suggests.

"Our theory is that the heart attack hospitalization appeared to serve as a teachable moment, or a wake-up call, to patients to do everything possible to prevent another heart attack," lead study author Dr. Ian Kronish of Columbia University Medical Center said by email.

The researchers studied more than 175,000 people age 65 or older whose doctors had given them prescriptions for statins.

FOX NEWS Health

Will your weight loss program work? It may depend on your genes

By Rachael Rettner, Senior Writer
Published May 31, 2016

SAN DIEGO — When people take part in a weight loss program, some shed many pounds, while others don't see the scale change at all. Now, early research suggests

people's genes may predict whether they will lose weight during a weight loss program.

In the study, the researchers analyzed information from 46 people who took part in an eight-week program that involved changes in diet, exercise and behavior, at a Veterans Affairs facility. The participants also submitted a DNA sample for a test (called Pathway Fit, from the DNA testing company Pathway Genomics) that analyzed 75 genetic markers already known to be linked with certain health conditions or with the body's responses to diet and exercise.

They found five genetic markers linked with weight loss, and then used these markers to create a mathematical model aimed at predicting weight loss among participants in their weight loss program. When they used the model to try to predict who would successfully lose weight, it was accurate 75 percent of the times.

4 RESEARCH PUBLICATIONS BY ISAR MEMBERS

Human carcinoembyronic antigen is a useful biomarker for diagnosis of acute ischemic stroke – A pilot study

1GS Ranga, N Bansal, 2SB Sharma, 1R Avasthi

1Department of Medicine and 2Department of Biochemistry, University College of Medical Sciences and Guru Tegh Bahadur Hospital, Delhi University, Delhi, India

Neurology Asia 2016; 21(1) : 1 – 6

ABSTRACT

BACKGROUND: Human carcinoembryonic antigen (CEA) is widely used as tumor marker. Striking similarities have been reported between process of tumor genesis and atherosclerotic diseases. CEA has been reported as a useful biomarker for diagnosis of acute coronary syndrome whose main pathogenesis mechanism is rupture of atherosclerotic plaque. Although same pathogenic mechanism leads to ischemic stroke, the role of CEA in stroke has not been studied. This study was aimed at evaluating role of CEA as diagnostic marker for acute atherosclerotic ischemic stroke.

METHODS: Sixty male subjects between 40 to 60 years of age were divided into 2 groups with 30 subjects each:

Group A (ischemic stroke) and Group B (age and sex matched healthy controls). Exclusion criteria for Group A included diabetes mellitus, heavy smoking, recent cerebrovascular or myocardial events.
The blood sample was taken not later than 24 hours of onset of stroke in Group A. In Group B, the blood samples were drawn at the time of enrollment in the study. CEA levels were estimated using double sandwich ELISA method. Results: The mean (SE) serum CEA levels in healthy controls and ischemic stroke patients were 0.95(0.11) and 5.57 (0.20) ng/mL respectively ($p<0.001$). After adjusting for confounders such as total leucocytes count, waist hip ratio, hypertension and smoking mean (SE) were 1.38 (1.23) and 5.26 (0.85) ng/ml respectively ($p<0.001$).

CONCLUSIONS: Patients with ischemic stroke have raised level of CEA. CEA is a promising novel biomarker for diagnosis of acute ischemic stroke.

ORIGINAL ARTICLE

PREMATURE GRAYING OF HAIR: AN INDEPENDENT RISK MARKER FOR CORONARY ARTERY DISEASE IN SMOKERS - A RETROSPECTIVE CASE CONTROL STUDY

Aggarwal A[1], Srivastava S[2], Agarwal MP[1], Dwivedi S[3]

ABSTRACT

BACKGROUND: Premature graying of hair as a risk marker among young smokers has a potential of identifying coronary artery disease (CAD) at a very early stage. There is absence of literature that assesses premature graying of hair as an independent marker of CAD in smokers.
MATERIAL AND METHODS: The present single-centre case control study enrolled a total of 62 consecutive chronic smokers (≤ 45 years) (Group I) and 60 consecutive young CAD patients (≤45 years) who were chronic smokers (Group II). Another group comprising of 114 patients (≤45 years) having no smoking history and no cardiac ailments either (Group III) was enrolled as control population. All subjects were males. A detailed history and clinical examination regarding conventional coronary risk factors and carotid intima media thickness was done in both groups.
RESULTS: The carotid intima media thickness, dyslipidemia and blood pressure were significantly higher in group I and II as compared to group III. When the groups were compared for graying of hair, it was found that the group II (i.e., smokers and CAD) had maximum prevalence of graying which was significantly higher than the control as well as smoker groups. The presence of premature graying of hair was associated with 3.24 times the risk of CAD on multiple logistic regression analysis.
CONCLUSION: The presence of premature graying of hair was associated with an increased risk of CAD in young smokers. Premature graying of hair can be used as preliminary evidence by clinicians for classifying patients at risk for premature CAD especially in smokers.
KEYWORDS: Premature Graying, Coronary Artery Disease, Smokers

DOI: http://dx.doi.org/10.4314/ejhs.v25i2.4

Evaluation of the role of Oxidative Stress in the Pathogenesis and Course of Acute Myocardial Infarction

Sreekanth K.S, Geevar Zachariah and Annamalai P.T

International Journal of Biochemistry 2015; 197: 472-482

ABSTRACT

Free radical induced oxidative stress and modification in LDL cholesterol play a major role in the pathophysiology of AMI. This study evaluated the role of oxidative stress in the pathogenesis and course of AMI with different risk factors. The markers of oxidative stress in 300 AMI patients and in 100 sex and age matched control subjects were estimated. These markers - the antioxidant enzymes, molecules and lipid peroxidation were found to be altered in these patients. SOD and CAT were found to be decreased in AMI patients with age ranges from 40- 60yrs and GPx and GR were decreased in the age group of <40yrs. SOD, Gpx and GR were also decreased

in AMI males when compared to AMI females. They were also found to be decreased in AMI patients with the history of diabetes, hypertension, a cholesterol value > 200mg/dl and with the habit of smoking and alcohol intake. The values of LPO is found to be elevated in all the AMI patients irrespective of the risk factors studied. Further evaluation after recovery wasn't done in these patients, and is a limitation of this study. More studies are required from different parts of the country to enhance our results.

ASIAN JOURNAL OF MEDICAL SCIENCES

Potential role of apolipoprotein B/A1 ration in obese and non-obese female patients of coronary artery disease

Sunita Mahto1, SumanBala Sharma2, Shridhar Dwivedi2, Mani Sethi3, Rahul Saxena4

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ABSTRACT

BACKGROUND: Obesity and hyperlipidemia are considered to be risk factor for cardiovascular diseases. Many patients who develop coronary artery disease (CAD) are non-obese and have normal lipoprotein cholesterol. Assessment of apolipoproteins can improve future risk of cardiovascular complications.

Aims and Objectives: We have investigated effect of weight inrelation with lipoprotein and apolipoprotein levels as efficient marker of CAD in North Indian females.

MATERIALS AND METHODS: The study population consist of 90 subjects categorized into three groups: Group I: Healthy controls; Group 2: Non obese patients of CAD and Group 3: Obese patients of CAD (n= 30 each group). Serum lipid profile along with apolipoprotein B and A1 were measured and apolipoprotein B/A1 ratio were calculated.

RESULTS: Total cholesterol and triglycerides levels were significantly high in obese patients as compared to non-obese and controls. LDL-C and HDL-C were altered insignificantly ($p<0.1$) in Group 2 and Group 3 as compared to Group 1. Apo B and apo A1 were significantly high in obese and non-obese CAD patients as compared to controls whereas insignificant difference was observed ($p<0.1$) when Group 3 patients were compared with Group 2. ApoB/Apo A1 ratio was increased significantly ($p<0.01$)) in patient groups as compared to controls.

CONCLUSION: Although LDL-C and HDL-C were normal in subjects of CAD, increase in Apo B, A1 and its ratio authenticates the fact that these markers are more efficient in detection of CAD risk in obese and non-obese patients than conventional lipid profile parameters.

Diabetes & Metabolism

Dev et al., J Diabetes Metab 2015, 6:6
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Study on Association of APOB Gene Polymorphism with Glycation of Low Density Lipoproteinin Type 2 Diabetes

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Abstract

Objectives: Sustained hyperglycemia results in non-enzymatic glycation of Apo B or LDL particle which may affect its recognition and uptake. Increase in circulating LDL levels is a vital contributor for atherosclerosis. APOB gene (c.12669 G>A, p.GLN4154LYS) polymorphism is believed to be associated with coronary artery disease. We thus designed our study to evaluate association of APOB gene polymorphism with Apo B glycation in type 2 diabetic patients.

Methods: A total of 45 non diabetic controls and 45 type 2 diabetic patients participated in this study. Following an overnight fast, venous blood was collected and analyzed for glycemic status, lipid profile and other biochemical parameters. Apo B was estimated using nephelometry, Glycated LDL was estimated by ELISA. PCR-RFLP was used to determine the DNA polymorphism in the APOB gene using EcoR1.

Results: Polymorphic analysis of APOB gene in diabetic population showed 73.3% wild type (R+/R+), 20.0% heterozygous mutant (R+/R-) and 6.7% homozygous mutant (R-/R-). Significant associations of glycated LDL was observed with R-/R- and R+/ R- when compared with R+/R+. Significant association was not observed between Apo B levels and of genotypes.

Conclusions: Presence of polymorphism may not affect the expression Apo B level but acts as an important contributor to LDL modification and increases its glycation. Since glycation of LDL reduces uptake of LDL by LDL receptors, it may increase the risk of atherosclerosis.

5 FORTHCOMING EVENTS

ISAR -Delhi Chapter-2nd Meet

6th August 2016

At PGIMER –Dr RML Hospital New Delhi

Organized by the Department of Biochemistry

***Organizing Secretary:* DrParul Goyal**

Email: isardc6aug@gmail.com

Contact no. 9312257090

ISARCON 2016 – 29th Annual Conference

21-23rd October

At Aster Medicity , Kochi

Organizing Secretary: Dr. Anil Kumar R, Lead Consultant,

Aster Cardiac Sciences, Kochi, Kerala

6 RECENT EVENTS

ISARCON 2014

The 27th Annual National Conference & International CME of Indian Society for Atherosclerosis Research on the theme of "Innovation in Atherosclerosis and Cardiac Diseases" was organized by Dept. of Pathology, King George's Medical University, UP at state-of-the-art Scientific Convention Center, Lucknow, India on 25th – 27th November 2014.

ISARCON 2015

28TH ANNUAL CONFERENCE
INDIAN SOCIETY FOR ATHEROSCLEROSIS RESEARCH & CME
New Paradigms in Atherosclerosis & Cardio-vascular Disorders
29th– 31st October, 2015
ORGANIZED BY: Hamdard institute of Medical sciences & research,
JAMIA HAMDARD, N.DELHI

BRIEF REPORT, ISARCON-2015

28TH Annual conference of Indian Society for Atherosclerosis Research was held at Hamdard Institute of Medical Sciences & Research, Jamia Hamdard, New Delhi from 29th to 31st October. The theme of the conference was 'New paradigms in atherosclerosis & cardio-vascular disorders. It included a workshop on Flow Cytometry.

The conference was inaugurated by Dr. Girish Sahni, Director General CSIR & Secretary DSIR, Govt. of India & presided by Dr. G.N. Qazi, Vice Chancellor, Jamia Hamdard (Deemed University). The conference was largely attended with speakers from abroad , guest speakers from India & delegates from all over the country.

The scientific deliberations included –

A. Key note address By Prof. Mahmood Hussain (USA)

B. Orations

Prof. R.N Chakravarty Oration	: By Dr. ShantanuSen Gupta (IGIB, N. Delhi)
Amar Shyam Oration	: By Prof. B.V SaiChandran (Puducherry)
LHMC Oration	: By Prof. J. Bhattacharjee

C. Plenary Talks

Dr. S Parasarthy (Florida, USA)
Prof. H.R. Rao (Minnesota, USA)
Prof Bobby V Khan (Atlanta, USA)
Rai.Ajit K Srivastava (USA)

D. Invited Lectures (40)
E. Oral Presentations (18), including 3 award sessions.
(Total 14 sessions; Conducted in two parallel Sessions)
F. Poster Presentations (53) conducted in 3 Poster Sessions
G. Quiz sessions (03)
H. Flow Cytometry workshop

Next Conference : Org. secretary & Conference Venue
Dr. Anil Kumar R, Lead Consultant, Aster Cardiac Sciences , Kochi, Kerala

Minutes of Executive Council Meeting-2015

29th Oct.2015

The meeting was held at 5.30 at HIMSAR during ISARCON 2015.

Honorary membership was offered to Dr GirishSahni, (DG CSIR) Dr M Hussain (USA), Dr G N Gazi (V C HIMSAR), Dr GunduRao, Dr Parthasarthy, in view of their enormous contribution to ISAR and their professional standing in CAD research. Dr Nalini handed over the duties of Presidentship to Dr S B Sharma, President elect, which she did, with appreciation of her contribution by the executive members. Dr S K Verma presented his annual report verbally. He has made 15 members from cardiothoracic deptt. JIPMER and Gastroenterology deptt.

Future conferences:-

2016 Cochin	Dr Anil Kumar
2017 AIIMS Patna	Dr Sadhna Sharma
2018 Pondicherry	Dr BijuPottakkat
2019 Delhi	Dr Ritu Singh

All letters must reach secretariat duly forwarded by Head of Institute.

Delhi Chapter and Pondicherry chapter have been started.
National body encourages making of state chapter. All state chapters must have permission from national body. (written formal approval)

State chapter membership is fixed at Rs.1000/- and a person may avail a discount of Rs.500/- if he takes a parent body membership within 3 yrs.
Secretary will be sole custodian of website of ISAR as always.

Dr Anupam Prakash Treasurer handed over the last four years audited statement of account. Work of treasurer was appreciated. A PAN number has been taken for society. All IAS fees have been updated.

Election result

President Elect: Dr Ritu Singh
Vice President: Dr Anupam Prakash
Treasurer: Dr Jagriti Bhatia
Secretary: Dr Amitesh Aggarwal
Jt. Secretary: Dr Srikanth Sivaram

All state representatives were requested to come with report of activities done in the year.

7 AWARDS

Abstracts/applications are invited for the following awards for the upcoming conference in Kochi -'ISARCON 2106'.

Dead line for inviting applications: 31st July 2016

Best Paper Awards

- Balaji Endowment Medal for Basic Experimental Research in Atherosclerosis.
- Sri Venkateswara Cardiac Research Medal for Clinical Research on Atherosclerosis.
- Lord Sreenivasa of Seven Hills Gold Medal for best original research

Eligibility Criteria

- The candidate should be a member of the society for at least 2 years.
- He/she should be the first author of the paper.
- The awardee should be 35 years of age or less.
- He/ she should obtain a certificate from head of the department or institution that the work was primarily carried out by the applicant. The paper should not have already been published in a scientific journal.
- A member who has won a medal against a particular award will not be eligible for the second time as the first author.
- No member can present more than one paper for the award.

Rules

- An abstract of not more than 200 words indicating the name of the award to be sent to the Secretary ISAR by e- mail only.
- The paper submitted for an award will be screened and judged by a panel of 3 judges and their decision will be final and binding.
- The paper selected will be presented at the annual meeting of the society and 15 minutes will be given to each paper for presentation.
- A paper selected but not presented at the conference will not be considered for the award.

Best Oration Awards

- Dr R.N Chakraverty Oration (Clinical Research in Atherosclerosis)
- Dr. P.A. Kurup Oration (Basic Research in Atherosclerosis)
- Amar Shyam Oration
- LHMC Oration

Eligibility Criteria

- The nominee should be a member of the society for at least 2 years.
- Should be an eminent scientist who has contributed significantly to atherosclerosis research may be nominated by life members of the society for the oration awards.
- Every year the nominations are to be invited by the Secretary, ISAR by e-mail.

Rules

- Biodata of the nominee
- Abstract of oration (250 words)
- ISAR membership status of the nominee
- Recommendations from ISAR life member who is proposing the nomination.

8 OBITUARY

Dr PA Kurup, Founding member and Past President, ISAR left for his heavenly abode on 21st June 2016. He will be deeply missed by all his colleagues. We pray for the departed soul.

9 ISAR EXECUTIVE COUNCIL 2016

ISAR OFFICE BEARERS

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Dr. S.B Sharma

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VICE - PRESIDENT
Dr. Anupam Prakash

SECRETARY
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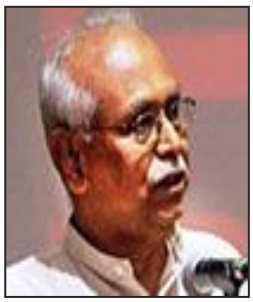

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10 ISAR MEMBERSHIP FORM

INDIAN SOCIETY FOR ATHEROSCLEROSIS RESEARCH

APPLICATION FORM FOR MEMBERSHIP

PHOTO

Name: Dr. /Mr./Mrs.:- _____ _____ _____

First Name Middle Name Surname

Designation & Affiliation:- _____

Home Address:- _____

Mobile No. :- _____ E-mail :- _____

Academic Qualifications:- _____

Type of Membership Applied for: - NRI ☐ Life Membership ☐

Applicant's Signature _____

Date:

CASH / CHEQUE/ DEMAND DRAFT of Rs._____

NRI	Rs. 10,000	Life member ISAR & IAS + State Chapter	Rs. 3500
Life member of ISAR & IAS	Rs.3000	One time IAS membership for members before Sept 2011	Rs.1500

(Note : DD/ Cheque should be made in name of " Indian Society for Atherosclerosis Research" payable at Delhi). Send the complete application with DD/ Cheque by post to:

Dr. Amitesh Aggarwal

Secretary, ISAR

D 72, Sector 20, Noida, UP 201301

Mobile :- 9811060025

E-Mail :- isarsecretary@gmail.com

For Office Use

Date of Receipt of Application _____ **Date of Approval** _____

Membership Number _____ **Signature Secretary**