

Stress 2006*

Stress is defined as distress caused by the demand on physical and mental energy. Everyone knows the adage 'Health is wealth'. However, no one seems to be adopting good health practices in his/her fast-paced life.

An international meeting on education for healthcare profession was organized recently during a preconference workshop. Geraldine Menezes (St John's Medical College, Bangalore) spoke on 'Environmental lead monitoring'. Some of the uses of lead include manufacturing of batteries, paints, ceramic colours and notably in gasoline (petrol) to improve engine performance, which has resulted in contamination of air, dust and soil, according to her. Occupational lead exposure remains a problem of potentially huge dimensions to lead-based industrial workers. Data were exhibited which mainly dealt with analysis of lead in traditional medicines, paint, ceramic colours, dust and soil in and around lead-based/battery industries. Using field-portable X-ray fluorescence analysers, alarmingly high levels of lead were detected.

*A report on Stress 2006 – an international meeting on education for healthcare professions held during 10–11 June 2006 at Kolkata. The meet was organized by National Referral Centre for the Prevention of Lead Absorption in India (West Bengal) and Department of Biochemistry, Vivekananda Institute of Medical Sciences, Kolkata.

Another speaker in this session S. J. S. Flora (DRDO, Gwalior) spoke on 'Preventive and therapeutic measures for lead poisoning'. Blood lead levels below 70 µg/dl, can result in damage to the central nervous system, kidneys and the haemopoietic system. Lead toxicity is also associated with a decrease in IQ test scores. Flora gave examples where lead caused oxidative stress by inducing generation of reactive oxygen species, reducing the antioxidant defence system via depleting glutathione, and inhibiting many other enzymes and essential metals needed for antioxidant enzyme activities. One of the ideal strategies for treatment for lead toxicity is primary prevention of exposure, he stated. Treatment of lead toxicity through chelation therapy for asymptomatic patients is also highly effective. Nutritional components have been reported to have beneficial effects in preventing lead exposure, he inferred.

Amitabha Dasgupta (University of Texas–Houston School of Medicine, USA) spoke on 'Personality, stress and heart disease'. Personality type and daily stress are important factors in determining risks for cardiovascular diseases. Dasgupta stated 'Cardiovascular diseases are the major causes of death in USA and Western countries. Elevated total cholesterol is a common modifiable risk factor and evidence from trials using lipid lowering drugs clearly established that lowering total cholesterol also significantly

lowered risks of coronary heart diseases'. The speaker furnished reports where it was shown that there is a correlation between stressful life events and acute myocardial infarctions.

Abbas Ali Mahdi (King George's Medical University, Lucknow) spoke on 'Stress-mediated biochemical changes: some possible preventive measures'. According to him, stress in medical parlance is defined as a perturbation of the body's homeostasis. In all stressful conditions, there is increased oxidative stress. Mahdi addressed stress-mediated oxidative changes in biomolecules like proteins, lipids and nucleic acids. Various preventive measures were also discussed.

Sucheta P. Dandekar (SethGS Medical College and KEM Hospital, Mumbai) spoke on 'Stress-related diseases: a potential role for free radicals'. To neutralize free radicals, the body uses antioxidants. However, if free radicals accumulate from stress until eventually the body is unable to handle the total load, disease, degeneration and breakdown occur, she stated. The role of oxidative stress and antioxidants in male infertility, acute pancreatitis and blood banking were discussed in detail.

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Himalayan seismicity and tectonics*

The recent devastating Muzaffarabad earthquake on 8 October 2005 in the western

*A two-day workshop entitled 'Himalayan seismicity and tectonics with special reference to the recent Muzaffarabad earthquake of 8 October 2005', organized by the National Geophysical Research Institute, Hyderabad, during 30–31 December 2005, and sponsored by the Department of Science and Technology, New Delhi.

Himalaya killed thousands of people in Pakistan and India, and left several more homeless. As the saying goes 'Earthquakes don't kill, buildings do', there cannot be a better example than this earthquake in Muzaffarabad that claimed more than 80,000 lives for a magnitude of only M_w 7.6. In view of this it was felt necessary that scientists and engineers get together to share their views on the event and discuss its implications for future

seismic hazard potential of the Himalayan region and the adjoining highly populated mega-cities. The two-day workshop involved about 25 experts from all over the country and 18 papers were presented. The workshop concluded with a panel discussion and recommendations for the future.

In his inaugural address, K. S. Valdiya (JNCASR, Bangalore) underlined the need to identify reasons for localization of