Overview of the 5th International Wine & Health Summit 2009

The 5th International Wine & Health Summit was held in Walla Walla, Washington, USA, in mid-July, 2009. Tedd M. Goldfinger, DO, of the University of Arizona School of Medicine was the Chairman, with Dominique Petithory-Lanzmann, MD, PhD, of Paris the International Co-Chairman. After an opening presentation by Marvin Slepian, MD, of the University of Arizona that described current knowledge on traditional risk factors for coronary disease, R. Curtis Ellison, MD, of Boston University School of Medicine and representing AIM (Alcohol in Moderation), provided an update on scientific data relating wine and other alcoholic beverages to health. He pointed out that research in the past few years strongly supports earlier studies showing that coronary heart disease, as well as many of the other “diseases of ageing” (including ischemic stroke, dementia, diabetes, and osteoporosis) are inversely related (ie decrease) to the moderate consumption of alcohol.

Pattern of drinking is increasingly being recognised as a key factor, with beneficial effects related to regular, moderate consumption without episodes of binge drinking. For most people, data now suggest that moderate alcohol intake can be considered as an important component of a “healthy lifestyle,” one that also includes not smoking, exercising, avoiding obesity, and eating a healthy diet. Many mechanisms of effect, including the activation of certain genes, have now been identified.

Roger Corder, PhD, MRPharmS, of Queen Mary University of London, described additional protection against cardiovascular disease from polyphenols in red wine. His research has found that the greatest protection against endothelial dysfunction is from oligomeric proanthocyanidins (OPC). These compounds are in greatest concentration in certain red wines that are consumed in areas of the world where humans seem to have the greatest longevity of life. His recent research has revealed a specific structure activity relationship indicating that an OPC receptor is likely responsible for mediating these beneficial effects on vascular function. He has also found that for OPCs to be absorbed into wine, the grape seeds should remain in contact with the wine until it has reached an alcohol concentration of at least 6%.

Dominique Petithory-Lanzmann, MD, PhD, of Centre Hospitalier Emile Roux, Assistance Publique des Hôpitaux de Paris, described the work led initially by Serge Renaud finding that the intake of alpha-linolenic acid (ALA) is a key factor associated with the very low rates of coronary disease among the cohort from Crete in the Seven Countries Study. She indicated that ALA, which is the pre-cursor of the omega-3 oils from fish, may provide even greater protection against sudden death than the fish oils themselves. Further, their studies show that ALA may be important in preventing atrial fibrillation, the most commonly occurring cardiac arrhythmia.

Morten Grønbæk of the Centre for Alcohol Research, National Institute of Public Health, in Copenhagen, Denmark, stated that some of the purported health effects of wine and alcohol may relate to confounding by associated lifestyle factors. He showed that drinkers, especially wine drinkers, tend to be better educated, smoke less, exercise more, binge-drink less, eat a healthier diet, and are less obese than non-drinkers, and these factors may help explain their better health. Also, he emphasized that we must never discount the serious health and societal problems related to alcohol abuse. He concluded that age, gender, genetic factors, and drinking pattern with regard to frequency and type of alcohol, all interact in determining whether drinking has a net positive or negative effect on health. Recent research supports
Stephen L. Kamholz, MD, of the New York University School of Medicine, focused on the effects of wine and spirits on lung function. He described a large study of male British physicians and the multi-centre Lung Health Study, both of which showed that deaths from respiratory disease were lower among moderate drinkers than among non-drinkers. He also presented data showing that resveratrol, a polyphenol in red wine, may exert a potent non-steroidal anti-inflammatory effect on alveolar macrophages and primary pulmonary airway epithelial cells. Some, but not all, large prospective epidemiologic studies suggest that wine consumption may reduce the risk of lung cancer, perhaps through the anti-cancer effects of resveratrol. Heavy alcohol intake, however, is often associated with adverse effects on lung function. He concluded by stating that “Taken together, these multiple studies suggest that that consumption of moderate amounts of wine could play a role in promoting ‘lung health.’”

Jeffrey B Schwimmer, of the University of California, San Diego, reported on his and his colleagues studies on the association of wine consumption and suspected nonalcoholic fatty liver disease (NAFLD), now the most common type of liver disease. NAFLD is associated with decreased insulin sensitivity, and is becoming more common because of increasing obesity around the world. Using unexplained elevations of serum alanine aminotransferase (ALT) as indicating NAFLD, these scientists found that the disease was markedly lower in modest wine drinkers than in non-drinkers.

In a talk entitled “Beer, Wine, & Alcohol: Scientific Truths,” Arthur Klatsky, MD, of the Kaiser Permanente Group in California, examined the reported protection of moderate alcohol intake against a number of cardiovascular and non-cardiovascular diseases. He stated that in the absence of randomized clinical trials of the effects of alcohol on disease outcomes, we must rely on well-done observational studies for guidance. He concluded that while such studies cannot completely exclude possible genetic or environmental predilections to health outcomes, a strength of many is involvement of large representative populations. Furthermore, criteria exist than can establish a very high probability of causality in these data.

Richard Harding, PhD, of London, UK, presented data describing the differences that occur among “sensible drinking guidelines” in different countries, and gave reasons for such differences. He concluded by discussing how we might present a scientifically sound and balanced message regarding wine and alcohol consumption to the public. Such a message should take into consideration the background drinking habits of the population being addressed, as well as seeking a proper balance between the need for decreasing abuse while not reducing moderate, healthy use of alcohol.

W. Douglas Weaver, MD, Immediate Past President of the American College of Cardiology, concluded the scientific presentations by describing the factors associated with setting guidelines for drinking at the population level, where the demonstrated health benefits from moderate drinking must be balanced with the adverse effects of alcohol abuse. He then outlined the difficult process the United States government is currently going though trying to revamp its national health policies.