



CVD Prevention

global news update

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Clinical encounters

Taking a thorough medical history

Charles M. Blatt, MD, Lown Cardiovascular Center

My patient, although approaching his 90th birthday, continues to teach, paint, and cultivate a fairly large plot of land. Two years ago he sought a surgical consultation regarding options for easing discomfort associated with spinal stenosis. He mentioned to the surgeon that he had experienced occasional chest heaviness over the past decade while walking up a hill if he was carrying an armful of vegetables. The surgeon immediately referred him to a cardiologist in an adjoining office for evaluation and pre-op clearance for spinal stenosis surgery. The cardiologist told him that, in view of his history of chest pain compatible with angina, he required immediate cardiac catheterization. The following day a coronary angiogram revealed extensive coronary artery disease, and the surgeon said, "You need a bypass operation but it's no problem. I have an opening in the operating room the day after tomorrow. You should stay here in the hospital until then."

My patient's wife called the Lown Cardiovascular Center, where we have managed this man's chronic stable exertional angina for over a decade. Ten years before, Dr. Bernard Lown had consulted with this man prior to his climbing Mount Kilimanjaro, a climb curtailed not by cardiac issues but by an unfortunate bout of food poisoning halfway up the mountain.

Though they live 200 miles away from the Lown Center, the couple came to see me a few days later. As this was my first meeting with the patient, I spent a full hour obtaining a detailed medical history. His wife was also present and I included her in my questioning, as spouses or other caregivers can enrich the history with useful and valid information. I ascertained that he maintained an active routine and concluded that for at least ten years he had lived comfortably with chronic stable angina. His clinical examination revealed no evidence of heart failure and his EKG was stable.

We discussed his health concerns and medical options. Surgical treatment of spinal stenosis among elderly people is successful only 50% of the time. Bypass surgery for an elderly person presents substantial risk of cognitive deficits,

continued on page 2

Inside this issue:

- 2 / **Journal Club:** Active and passive smoking and development of glucose intolerance among young adults in a prospective cohort: CARDIA study
Global CVD Calendar
- 3 / Prevention activities *around the world*
Clinical encounters: Taking a thorough medical history
- 4 / *CVD Resources*

which would alter this person's quality of life much more than the pain of spinal stenosis. I explained that the anatomy identified by the coronary angiogram had developed over several decades, and that there appeared to be no urgency to undergo a procedure that carried substantial inherent risk. I also explained that while the spinal stenosis surgery promised no certain benefit, we could explore alternatives. Together we agreed that it would be preferable to manage his angina with a medical program that included avoiding vigorous postprandial exercise, and that he would alert me if his symptoms changed.

Six months later he called again. His primary care provider had noted that his heart rate was 45 beats per minute and told him that he needed a pacemaker. He recounted, "My doctor was arguing with me, asking me 'Aren't you lightheaded? Aren't you sluggish? You're supposed to be!' I told him that I was happy the way I was and didn't need a pacemaker. Nevertheless, he told me to go see the cardiologist at the end of the hall because I needed a pacemaker now! But I told him I first wanted to check with my physician in Boston."

A few days later he came to see me. We spoke at length, I examined him and I reviewed past EKGs, which revealed that his heart rate had been slow for at least a decade. "You have the best heart rate one could imagine for a person with coronary heart disease," I congratulated him. "Because your rate is slower, it allows more time for your heart to get the blood it needs." He was enthusiastic about this positive explanation of his heart rate and happy that the pacemaker had been averted. Rather than returning home fearful that his heart might stop beating, he and his wife celebrated that his heart had so successfully adapted to his coronary disease.

The key to this patient's management was taking a thorough medical history, something that incurs little cost and carries no risk. It simply takes time and willingness to listen.

For nearly three decades, studies conducted by the Lown Cardiovascular Research Foundation have demonstrated the effectiveness of patient-focused, individually tailored medical management of coronary heart disease. (1) (2) Subsequent pharmaceutical advances have further increased the success rates of medical management combined with focus on lifestyle and psychosocial factors. (3)

This patient continues to lead a physically and intellectually active life with minimal angina, uses occasional sublingual nitroglycerin, and maintains a wholesome heart rate of 45.

(1) Podrid PJ, Graboys TB, Lown B: Prognosis of medically treated patients with coronary artery disease with profound ST-segment depression during exercise testing. *NEJM* 1981;305:1111-1116.

(2) Graboys TB, Headley A, Lown B, Lampert S, Blatt CM: Results of a second-opinion program for coronary artery bypass graft surgery.)

(3) Jabbour S, Young-Xu Y, Graboys TB Long-term outcomes of optimized medical management of outpatients with stable coronary artery disease *Am J Cardiol* 2004;

Journal Club

Active and passive smoking and development of glucose intolerance among young adults in a prospective cohort: CARDIA study

*Reviewed by Joaquin Barnoya, MD, MPH
ProCOR contributing editor*

Reference: *BMJ*, doi:10.1136/bmj.38779.584028.55

Authors: Houston T, et al.

Study's purpose: To evaluate whether active and passive smokers are more likely than their non-tobacco-smoking counterparts to develop glucose intolerance or diabetes.

Methods: The Coronary Artery Risk Development In Young Adults study (CARDIA) study is a prospective study of development of cardiovascular risk from young adulthood to midlife. It includes African-Americans and white young adults from 4 US cities. Participants were examined at baseline, followed by telephone every year, and seen in person 2, 5, 7, 10, and 15 years after baseline. Tobacco exposure was recorded each year by questionnaire and serum cotinine was measured at baseline.

Results: Overall, incidence of glucose intolerance was 16.7% at 15 years of follow-up. Across smoking categories, 15 year incidence of glucose intolerance was greatest among current smokers (22%), followed by passive smokers (17.2%), previous smokers (14%) and never smokers with no passive smoke exposure (11%). Using never-smokers with no passive smoke exposure as a reference group, and after adjusting for multiple confounders, current smokers (1.65, 1.27-2.13) and passive smokers (1.35, 1.05-1.71) had a higher risk of developing glucose intolerance. In current smokers, risk increased with pack years smoked and the association seems stronger for whites than African-Americans.

Comment: This study adds to the evidence linking tobacco smoke (either as active or passive smoking) with insulin resistance. As the obesity and diabetes epidemics continue to spread around the world, this evidence should be used in arguing for smoke-free environments as a way to reduce the burden from obesity and diabetes. Understanding of the mechanisms by which tobacco smoke leads to insulin resistance deserves further research, yet we should not wait to take action.

Prevention activities *around the world*

Malaysia: Cigarette graphic warnings tie into public awareness campaign

Graphic warnings may soon cover cigarette packets in Malaysia. The graphics will be designed to look like miniature "Tak Nak" (Say "No") posters that were used during Malaysia's "Tak Nak" Campaign. The 5-year "Tak Nak" anti-smoking campaign utilized billboards, posters, TV ads, and radio to increase awareness of the dangers of smoking.

Saudi Arabia: Schools are key to health

Dr. Sahar Al Dossary, director of pediatrics and neonatology at Saad Specialist Hospital, Saudi Arabia, recently called for governments and schools across the Middle East to return compulsory physical education to the curriculum, improve the nutritional value of canteen food, and adopt a system of 'health report' cards for students in order to address juvenile obesity. More than 11% of children in the Middle East are obese. Dr. Al Dossary said: "Schools are a major contributor to the epidemic. The meals served in school canteens are 45 to 50% fat and the amount a child exercises is decreasing year to year due to the number of sedentary hours spent in front of the television. We are sending our children mixed messages; we tell them to eat well, but we feed them badly."

UK: The physician's role in tobacco control

England: The National Institute for Health and Clinical Excellence (NICE) reports that if doctors encouraged more patients to stop smoking with opportunistic advice and referral of some patients to support clinics, the number of smokers quitting each year in England would increase by 165,000.

US: Physicians should monitor patients' activity

The American Academy of Pediatrics is encouraging physicians to routinely monitor the daily activity of children and their parents to help prevent obesity. A policy statement affirms that physical activity from infancy through the teen years is key to health, and parents should set good examples by adopting active lifestyles themselves. Pediatricians are encouraged to ask patients and their parents during regular office visits how active they are, to document how much time patients spend each day on sedentary activities, and to urge them to follow AAP guidelines for television viewing (no TV for children under age 2 and no more than two hours daily of TV and video games for older children).

Research report

Obesity in developing countries

*Ambar Kulshreshtha, MD
ProCOR contributing editor*

A new pandemic of obesity and the accompanying non-communicable diseases has created a double disease burden on the health services of many resource-poor countries, where the challenge of infectious diseases like HIV and TB has far from disappeared. Groups most at risk are urban middle-aged adults and, in particular, women and younger age groups. But even semi-urban and rural areas are not completely free of it. The gradual beginnings of this epidemic in low-income countries might obscure the fact that its rate of growth may be as fast as in the developed world.

Gambia--a small West African country in the early phases of a demographic and nutritional transition--is a case in point. A 1996-7 survey reported an overall 4% prevalence rate for obesity but concealed major variations like the nearly 25% obesity rate among urban women. There was a 17-fold difference in obesity between men and women: in the same age group of >35 years, 32.6% women were obese as compared with <2% men. A strong gender divide has been similarly noted in data sets from several African countries.

Reasons for this emerging trend include:

Environmental factors: Most developing nations are shifting from agricultural and energy-intensive occupations towards service sector occupations with lower levels of physical activity. Increased use of motorized transport, sedentary employments, labor saving mechanized devices at home and in the workplace, and sedentary pastimes such as TV and video games have led to an unhealthy macro-environment. Traditional lifestyles are being infiltrated with globalization affecting initially the wealthier urban members and then penetrating to become a disease of the poor.

Nutritional transition: A nutritional transition with changes in global food supply and relative costs of foodstuffs is leading to a change in the dietary patterns of populations across the globe. The low cost of highly refined oils, fats, carbohydrates, and increased market food consumption based on marketing by multinational corporations has contributed to this trend. Increased intake of energy density diets, animal source foods, and edible oil has changed the structure and composition of diets across nations.

Socio-behavioral factors: In most developing countries, large body size has traditionally been prized as a symbol of

continued on next page

South Asia Public Health Forum (SAPHF)"

SAPHF promotes communication and knowledge sharing among public health professionals to lead to better health policies. Its email list and website are open to all. SAPHF circulates news and articles on public health in South Asia from a variety of sources and posts clinical research from South Asia. For more information, contact Rana Jawad Asghar, jawad@alumni.washington.edu.
www.saphf.org

Heart Sounds

This on-line virtual classroom provides digital audio files of auditory recognition exercises and high-grade repetition of abnormal heart sounds to improve proficiency in cardiac auscultation.

Cardiosource/American College of Cardiology
www.cardiosource.com/heartsounds/index.asp

More CVD resources are available at www.procor.org. Share your preferred resources with others by emailing them to ccoleman5@partners.org.

The *CVD Prevention global news update* is produced for Heartfile by ProCOR.

Heartfile (www.heartfile.org) is a Pakistan based non-profit, health-sector NGO recognized worldwide for its pioneering contributions in health policy, public health planning, disease prevention and control. Heartfile focuses on developing innovations in the health sector; contributes to knowledge in the areas of health policy and public health planning for low-resource settings, and forms the empirical basis for health system reforms within the framework of an integrated approach to the prevention and control of chronic diseases.

ProCOR (www.procor.org) is a global health communication network promoting cardiovascular health in low-resource settings. ProCOR uses email and the internet for the exchange of timely, accurate, and relevant information among a diverse global community involved in medicine, public health, policy, and research.

The *CVD Prevention global news update* compiles recent news about advances in heart health knowledge and practice around the world. To receive regular email updates and become part of ProCOR's discussion forum, send an email to procor-join@healthnet.org or visit www.procor.org.

We invite you to contribute your ideas, experiences, and suggestions about this newsletter by emailing Catherine Coleman, Editor in Chief, ProCOR
ccoleman5@partners.org

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power, beauty and affluence. Studies have confirmed a high level of body satisfaction and obesity acceptance, especially among middle-aged women. A substantial proportion of Gambian women misuse steroids to gain weight. The association of thinness with HIV/AIDS also leads to positive attitudes to overweight among Africans.

Genetic factors: It was recently proposed that an undernourished fetus because of poor feeding in pregnant women could face an increased risk of chronic diseases and obesity later in life. (Hales and Barker) More study is needed to corroborate these findings for future policy implications.

The economic consequences of inaction towards non-communicable diseases can be disastrous for countries already battling infectious diseases and childhood malnutrition. For instance, China will lose \$556 billion to heart disease, stroke and diabetes in the period 2005-15.

Obesity is a major avoidable risk factor for a wide range of non-communicable diseases and educational campaigns and effective public health interventions can offer hope to arrest this trend.

Reference: "The emerging epidemic of obesity in developing countries." Andrew M Prentice *International Journal of Epidemiology* 2006;35:93-99.
<http://ije.oxfordjournals.org/content/vol35/issue1/index.dtl>

Global CVD Calendar

July 12-15, 2006: 13th World Conference on Tobacco Or Health
Washington, DC USA
<http://www.13thwctoh.org/> email: secretariat2006@cancer.org

August 31- September 2, 2006: Physical Activity & Obesity International Congress Satellite Conference
Brisbane, Australia
<http://www.obesitysatellitebrisbane2006.qut.edu.au/>
Email obesity2006@qut.edu.au

September 2-6, 2006: 15th World Congress of Cardiology
Barcelona, Spain
European Society of Cardiology and World Heart Federation
www.worldcardio2006.org email: congress@worldheart.org

September 3 - 8, 2006 10th Int'l Congress on Obesity
Sydney, Australia
Australian Society for the Study of Obesity (ASSO)
www.ico2006.com email: enquiries@ico2006.com

World Heart Day - How Young Is Your Heart?
September 24, 2006
www.worldheartday.com email: carola.adler@worldheart.org

October 15-19, 2006: 21st Scientific Meeting of International Society of Hypertension
Fukuoka, Japan
www.congre.com.jp/ish2006 email: ish2006@congre.co.jp