Clinical Digest

ONLINE EDITION

Diabetes Care

Anemia in Patients With Diabetes: Dangerous to Miss

The presence of anemia in patients with diabetes—which is a common and often unrecognized complication of the disease—can have adverse effects on the progression of cardiovascular disease and nephropathy, as well as lead to increased hospitalization and mortality rates. Much of what is known about anemia in patients with diabetes has been learned through studying data on patients in the ambulatory setting. Therefore, in a recent study, researchers from Assaf Harofeh Medical Center, Serifin, Israel, sought to define the prevalence and demographic characteristics of anemia in patients with diabetes who were hospitalized in a medical department.

The researchers screened 3,145 patients who had been admitted to 2 internal medicine departments between July 2005 and August 2006 for diabetes. A total of 872 patients had diabetes. Forty of the patients with diabetes died during their first hospitalization, and the remaining 832 were divided into 2 groups according to whether they had anemia (334 with anemia; 498 without anemia).

Patients with anemia were further classified into 2 subgroups. The first subgroup included patients with obvious causes of anemia (such as hematologic disorders, active malignant disease, or acute severe bleeding), patients with multiple organ failure or on chronic dialysis, and patients who declined further hospitalization. In this first subgroup, only follow-up for survival was performed and the eventual causes of death were registered. The second (and main) subgroup included patients in whom etiology of anemia was unknown on admission and was evaluated during hospitalization.

When compared with nonanemic patients with diabetes, the anemic patients with diabetes were older (mean age 71.4 vs 64.4 years, respectively) and predominately female (52.4% vs 44.4%, respectively). Of the 247 patients in the second subgroup, 38% were deficient in iron, 12% were deficient in vitamin B_{12} or folate, 54% had anemia of chronic disease, 47% experienced heart failure, 39% had renal dysfunction, and 22% were complex nursing care patients (patients who typically are excluded from studies in the ambulatory care setting) or had diabetic foot.

During the median follow-up period of 19 months, 58 of the 334 diabetic patients with anemia (17.3%) died, compared with 20 of the 498 diabetic patients without anemia (4%). The researchers say that anemia in patients with diabetes is associated with a higher postdischarge mortality rate as compared with diabetic patients free of anemia. Most deaths occurred within the first year after discharge, both among diabetic patients with anemia and among diabetic patients without anemia (50 of 56 and 12 of 20, respectively). The most common cause of death was infection, while male gender, presence of albuminuria, and heart failure all were associated with a higher risk of death.

Source: *Eur J Intern Med.* 2010;21(2):91–96. doi:10.1016/j.ejim.2009.12.002.

Preventive Medicine

Scared Straight—Away From Smoking

In a novel behavior modification project, researchers from University of Sydney, New South Wales, Australia, attempted to facilitate smoking cessation by using a simulated and personalized experience of a myocardial infarction (MI). Their theory is consistent with the concept of the teachable moment—an event (such as an MI or a surgery) that motivates patients to adopt risk-decreasing behaviors.

The study included 13 participants who smoked. They were all aged 25 years or older, previously had attempted to quit smoking, and were married or in a committed relationship with a nonsmoking partner. Digital photographs were taken of the participants and their partners in prescribed poses. The photographs then were inserted into prespecified sections of a previously prepared video, which depicted the smoker experiencing an MI after smoking cigarettes; the potential consequences of an MI, including death or disability; and the implications for the smoker's family and friends. The dramatic enactment was interspersed with a physician describing the process of an MI caused by cigarette smoking, aided by animation and case vignettes.

The video had an observable effect on the viewers, the researchers say. Of the 13 participants, 7 had such reactions to the video as "looking uncomfortable," "red eyes," or "difficulty speaking." Some of the smokers' comments about the video included

"it made me aware of the important things," "it felt very real," and "that's me, that's me!"

At week 1, 7 of the 13 participants (54%) reported stopping smoking, while the other 6 reported reducing their cigarette consumption—average daily cigarette consumption at week 1 dropped from 17.3 to 2.7. At 3 and 6 months, 7 participants were still nonsmokers. Although 5 of these 7 nonsmokers used additional anti-smoking aids, these aids had not worked in previous attempts to quit. The researchers say their study shows that it is feasible to create a simulated and personalized teachable moment that emphasizes the link between smoking and an MI. They also say their preliminary results are encouraging, as "other [smoking cessation] techniques rarely achieve better than 30% abstinence rates."

Source: *Am J Cardiol.* 2010;106(1):44–46. doi:10.1016/j.amjcard.2010.02.010.