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Improving Your Health at 75 – Part I

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Your Life Your Health

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The American Heart Association's Scientific Statement from the Council on Clinical Cardiology Subcommittee on Exercise, Cardiac Rehabilitation and Prevention published in 2002 gives patient and healthcare provider guidance in how to improve the health of those who are over 65 and particularly of those who are over 75 years of age. Entitled, "Secondary Prevention of Coronary Heart Disease in the Elderly (With Emphasis on Patients >75 Years of Age)," the statement emphasizes the benefits of exercise even for those who are in their eight decade of life. "Secondary Prevention" refers to actions taken after heart disease – heart attack, heart failure, etc – has occurred.

More people are surviving into their 70s and 80s and more and more people are still very active during those years. While the ground work for being healthy at that age begins in youth, health can be improved with positive steps even after heart disease has occurred. It is NEVER TOO LATE to start taking these steps in order to improve one's health.

The prevalence of chronic ischemic heart disease in men and women ≥ 65 years of age in the United States in 1995 was 83 per 1000 men and 90 per 1000 women. Among those ≥ 75 years of age, the prevalences were 217 per 1000 for men and 129 per 1000 for women. Increasing evidence has accumulated over the past 2 decades that elderly individuals with CHD can benefit greatly from exercise training and other aspects of secondary prevention. Traditionally, secondary prevention programs included:

- exercise
- smoking cessation
- lowering of cholesterol
- controlling blood pressure
- diabetes care
- weight control

These initiatives were combined with interventions directed at:

- depression
- social isolation
- return to work
- other psychosocial issues)

The purpose of this Scientific Statement was to provide an update on the benefits of specific secondary prevention risk factor interventions in this age group and, where possible, to delineate benefits in the older elderly (≥ 75 years of age).

How does the presentation of heart disease differ in the elderly?

Decreased physical activity and decrease exercise ability (aerobic exercise capacity) often seen with what is considered "normative" aging affects the older heart-disease patient. The presence of emphysema (chronic lung disease), decreased blood supply to the legs (peripheral arterial disease), arthritis, excess weight and weakness due to neuromuscular disorders may make walking difficult. A lack of chest pain (anginal symptoms) in an elderly patient with suspected heart disease may merely reflect the patient's lack of significant activity.

Typical angina pectoris remains common at elderly age, however, an increased percentage of older have atypical manifestations of decreased blood supply to the heart (myocardial ischemia), including shortness of breath (dyspnea) and worsening heart failure. Often the elderly have more unstable angina and what is called "non-Q-wave MI."

It is thought that this happens because the heart muscle becomes "stiffer" with age, decreasing the ability of the heart to relax and to fill completely during the resting phase of the heart beat. This decreased "compliance," when associated with decreased blood supply to the heart muscle through the coronary arteries results in heart disease unique to the elderly. Thus the shortness of breath and worsening heart failure in the elderly is often called "an anginal equivalent" because while the patient does not have chest pain per se, the underlying heart problem is the same as the younger person who presents with classic angina pain.

Self-care by the elderly requires that they not ignore shortness of breath and that healthcare providers distinguish between heart, lung and conditioning causes of shortness of breath. Few tests are as safe and as effective in making this distinction as the cardiopulmonary exercise test which is performed by SETMA's cardiopulmonary laboratory (CPET).

The frequent symptomatic presentation of coronary ischemia as shortness of breath is related to a number of factors, including significant failure of the valve between the left ventricle and left atrium preventing blood from flowing backwards into the atrium (mitral valvular regurgitation), which also may be responsible for symptoms of left heart failure. An even more frequent substitution of shortness of breath for chest discomfort occurs in elderly patients with acute MI. This atypical presentation of acute MI, particularly in women, may partially explain the high rate of unrecognized MI in this age group.

Myocardial Infarction

The AHA Scientific Statement identified contributions to increased heart attack mortality at an elderly age as including:

- Increased incidence of other conditions such as diabetes, hypertension, etc., and more extensive heart disease

- Decreased use of beneficial therapies, including substantial under use of medications shown to improve MI survival including aspirin, β -blocking drugs, and angiotensin-converting enzyme [ACE] inhibitors)

Furthermore, in the Myocardial Infarction Triage and Intervention Registry, which compared patients >75 years of age to younger patients showed the following difference rates of use of intervention therapies between the two groups:

- Coronary thrombolysis 5% in the >75 age group versus 39%, in younger patients.
- Percutaneous transluminal coronary angioplasty (PTCA) 7% in the >75 age group versus 29% in the younger patients.
- Coronary artery bypass grafting (CABG) 5% in the >75 age group versus 11% in the younger age group.
- Aspirin use 57% in the >75 age group versus 82% in the younger age group.

The Statement reported that the benefit of coronary thrombolysis is evident to age 75, this is not the case at very elderly age. Primary PTCA seems to offer an advantage over coronary thrombolysis in the very elderly, although both strategies have significantly better outcomes than conservative care.

The American Heart Association/American College of Cardiology (AHA/ACC) Guidelines for Preventing Heart Attack and Death in Patients With Atherosclerotic Cardiovascular Disease recommend that all patients who have had an MI should be treated with ACE inhibitors and that these should be started early in stable, high-risk patients. Long-term ACE therapy should be considered for all other patients with coronary or other vascular disease unless contraindicated. β -Blocker (Beta blocker) therapy should be started and continued indefinitely in all post-MI and acute ischemic syndrome patients, dependent on contraindications.

Interventional Therapy

Because many older patients tolerate antianginal therapy poorly, and because octogenarians (patients in their eighties) with unstable angina treated medically have an event-free one-year survival rate of only 55% with a high rate of persistent symptoms and recurrent hospitalizations, major interest has focused on the value of interventional therapy.

Although angiographic success is comparable to that seen in younger patients, elderly patients who undergo PTCA are more likely to be women and to have multivessel high-grade stenoses and an excess of hospital death and postprocedural MI.

The newer transcatheter procedures, including intracoronary stenting, have shown similar success rates in patients ≥ 70 years of age compared with younger patients in the Newer Approaches To Coronary Interventions (NACI) Registry, although other studies have described an excess of non-Q-wave MI and vascular complications in this older patient group.

Coronary Artery Bypass Surgery

An increasing number of octogenarians (patients in their 80s) undergo CABG surgery, many of them reoperations. Elderly patients are more likely:

- to have unstable and severe angina
- to be women
- to have hypertension
- to have heart failure (HF)
- to have other vascular diseases

Comparisons between the elderly who have conservative therapy and those with aggressive intervention show:

- A 3-year survival rate of 77% with elective CABG versus 54% for medical therapy
- Five-year survival is improved with CABG versus PTCA (66% versus 55%).

In the database of the Society of Thoracic Surgeons (1995 to 1996), a 4.7% CABG mortality rate is described for octogenarians. However, there is an excess of postoperative irregular heart rhythms (arrhythmias, particularly atrial fibrillation), stroke, and protracted hospital stay, despite subsequent excellent anginal relief and improved functional status. One series showed the survival after CABG in octogenarians to be comparable to that for the US octogenarian population as a whole.

From the AHA Statement, it can be concluded that coronary bypass surgery for those in their 80s should not be categorically excluded but must be evaluated on the basis of the patient's overall condition and co-existing conditions which will complicate their recovery and survival.

In part II of this review of the AHA Scientific Statement, we will examine the secondary prevention recommendations made by the American Heart Association.