An Update on the Treatment of Stable Angina Pectoris

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Chronic stable angina (CSA) is one of the most common symptoms experienced by persons with coronary heart disease. It is estimated that over 140 million persons worldwide suffer from symptoms of angina. The incidence of angina increases with age and results in diminished quality of life, loss of productivity, and disability. Currently, in the US, one in 10 people over the age of 65 have chronic stable angina. By 2010, approximately 18 percent of the US population will be over the age of 65 – this will increase to 30 percent by 2025. These aging demographics are similar worldwide. Thus, angina will present as a chronic condition requiring significant health care resources.

Although angina affects both men and women, women have more symptoms of angina when compared to men. Medical costs associated with chronic stable angina exceed 15 billion dollars per year, with indirect costs being likely as high.

Medical therapies for relief of anginal symptoms date back to the 1880's when nitrates were first used. Nitrates were followed nearly a century later with beta blockers . Soon, coronary artery bypass surgery became available and calcium channel blockers showed promise. In the late 1970's, percutaneous coronary interventions (PCI) became widely used to improve symptoms. More recently, a new medication, ranolazine (Ranexa), a late sodium channel blocker, became available for treatment of anginal symptoms in patients who do not respond to traditional medical therapies.

Spinal cord stimulation, and enhanced external counterpulsation (EECP) are non-pharmacologic and non-surgical therapies also used to improves symptoms. Spinal cord stimulation is generally reserved for patients who have received maximal surgical and medical therapy and have refractory angina. EECP uses a series of cuffs wrapped around the legs that deliver compressed air synchronized to the cardiac cycle. It has been shown to be well tolerated, safe, and effective in reducing anginal symptoms. More research needs to be done with these therapies.

Treatment goals for patients with CSA should include improving longevity as well as quality of life (QOL). Strategies to improve longevity include reducing disease progression, preventing new events, readmission to the hospital, and reducing mortality. Treating anginal symptoms includes therapies to diminish symptoms, improve functional capacity, and improve quality of life through emotional support and education.

The mnemonic A, B, C, D and E is often used as a way to prompt the recollection of important therapies for persons with chronic stable angina.

A	B	C	D	E
Aspirin (anti-thrombotic) & Antianginal therapies	Beta blockers & Blood pressure	Cigarette smoking & Cholesterol	Diet & Diabetes	Education & Exercise

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Education is a key component of care for patients with chronic illness such as coronary artery disease. The use of "integrative rehabilitation" for patients with angina has been studied. Integrative rehabilitation includes acupuncture, a self-care program, acupressure, Chinese health philosophy, stress management, and lifestyle adjustments. Integrated rehabilitation in patients with severe angina has been shown to add quality years to patient's lives and was cost effective.

Get Tough on Angina (GTOA) is a public health initiative designed to increase quality of life (QOL) in persons with angina and to increase the public's awareness of chronic stable angina and its impact on health and QOL. GTOA was developed by the Preventive Cardiovascular Nurses Association. It includes three main components:

- An educational brochure and handbook for patients and families available in both English and Spanish;
- A slide and script set for a four-part educational support group to be led by nurses or other health care providers;
- A slide and script set for a one hour community education forum. Both slide and script sets include detailed information about the educational content, class activities, and homework.

The GTOA program is available free of charge. All of the products can be ordered by emailing the Preventive Cardiovascular Nurses Association at www.pcna.net.

Chronic stable angina is a common symptom that is rising in incidence along with an aging population and an improved ability to prevent death from coronary atherosclerotic vascular disease. In spite of advanced medical and interventional therapies, anginal symptoms remain common and negatively affect quality of life for millions. Angina also contributes enormously to the personal, societal, and financial burdens attributed to poor health. Providing patients with medical, surgical and educational/support will reduce both morbidity and mortality and enhance Quality of Life.

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Further Readings

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